# University of Southern Maine Undergraduate Catalog 2009-2010 

University of Southern Maine

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# University of Southern Maine 

Undergraduate Course Catalog<br>2009-2010

## Table of Contents

Welcome ..... 1
The University ..... 2
Programs of Study ..... 4
Undergraduate Admission ..... 8
Financial Information ..... 17
Student Financial Aid ..... 22
Academic Policies ..... 25
Academic Support Services ..... 36
University Life and Student Services ..... 39
The Core Curriculum ..... 48
University Honors Program ..... 60
Russell Scholars Program ..... 65
Women and Gender Studies ..... 69
College of Arts and Sciences ..... 74
College of Education and Human Development ..... 266
School of Business ..... 280
School of Applied Science, Engineering, and Technology ..... 298
College of Nursing and Health Professions ..... 342
Lewiston-Auburn College ..... 380
Division of Advising and Academic Resources ..... 418
Division of University Outreach ..... 420
Muskie School of Public Service ..... 424
School of Law ..... 424
Office of Sponsored Programs ..... 425

## Welcome

## Dear Student:

You are beginning an exciting educational journey that will not only transform your way of looking at the world but will also equip you with the knowledge and the skills that you will need to lead a productive and fulfilling life after you graduate.

The University of Southern Maine has some of the most talented and engaged faculty in New England, and they care deeply about your intellectual growth and academic success. You are part of a university where dedication to student success is shared by the entire community, from the president's office to the hardworking staff who ensure that the services necessary for your comfort and security are there when you need them.

You will meet professors who will change your way of understanding the world, and you will discover a community here at USM in which to learn and grow. I expect that you will find your studies at USM challenging at times. In the end, though, I believe that you will leave here enriched by your experiences and well-equipped to take your place in an ever more global workplace.
Welcome to USM!
Sincerely,
Selma Botman
President

## The University

The University of Southern Maine, the most cosmopolitan of Maine's institutions of higher education, is rich in possibilities. It is a major educational force in the overall growth and improvement of the economic, civic, social, and cultural fabric of southern Maine and, as a result, provides students with rich formal and informal learning opportunities inside and outside the classroom.

USM comprises eight academic units: College of Arts and Sciences; School of Applied Science, Engineering, and Technology; School of Business; College of Education and Human Development; College of Nursing and Health Professions; Lewiston-Auburn College; the Edmund S. Muskie School of Public Service; and the University of Maine School of Law. The women and men of the USM faculty have a passion for communicating the excitement of learning and the joy of discovery. USM's faculty members represent a wide range of knowledge and expertise; among them are Fulbright and Guggenheim Fellows and authors of national note in a range of academic disciplines.

USM's location in southern Maine, a region cited as one of the most livable in the country, offers a range of educational, cultural, and recreational opportunities. The student body is the most diverse in Maine-approximately half are full-time students, 59 percent are women, and the average age of an undergraduate is 28 years. This diversity of age, background, and purpose provides a lively, challenging environment for learning - a context in which scholarship and experience gained from living complement one another.

As a member of the University of Maine System, USM offers its 10,000 plus students a host of undergraduate and graduate study options. USM offers over 50 baccalaureate degree programs as well as numerous minors and concentrations that allow students valuable opportunities to shape their undergraduate careers in ways most meaningful to them. In addition, USM offers 27 graduate programs, in which students work side by side with distinguished scholars and researchers who are pushing the boundaries of new knowledge and contributing to the growth and vibrancy of the region, the state, and the nation. USM offers courses at the University Colleges in Saco and Bath, as well as on the Web, over instructional television, and at work sites. The Center for Continuing Education and some of the USM schools and colleges offer a variety of noncredit programs. USM's Osher Lifelong Learning Institute provides intellectually stimulating opportunities and special activities for students 55 years of age or older. USM further addresses the broad range of student interests with its Weekend College, Winter Session, Summer Session, National Student Exchange Program, and Early Studies program for high school juniors and seniors.

The University of Southern Maine is accredited by the New England Association of Schools and Colleges. The nursing programs of the College of Nursing and Health Professions are accredited by the National League for Nursing, and the athletic training program within the College is accredited by the Commission on Accreditation of Allied Health Education Programs. The College of Education and Human Development is accredited by the National Council for Accreditation of Teacher Education. The School of Business is accredited by AACSB Internationalthe Association to Advance Collegiate Schools of Business. Several departments within the College of Arts and Sciences, the College of Education and Human Development, the School of Applied Science, Engineering, and Technology, and the Muskie School of Public Service are accredited through specialized agencies. The University of Maine School of Law is approved by the American Bar Association and the Association of American Law Schools.

USM is a growing, rigorous, and responsive university that reflects the needs and hopes of the southern Maine community. With its proud tradition of working collaboratively with the citizens it serves, the University of Southern Maine will continue to develop as a valued learning-centered academic community.

Consistent with the educational mission of a comprehensive university, it is the aspiration of the faculty at the University of Southern Maine that students achieve the following results from their investments in higher education:

They should possess the knowledge and skills necessary to enter the work force or be admitted to graduate or professional school. Graduates of the University of Southern Maine should also possess the attributes and skills that lead to rich and fulfilling lives.

They should be intelligent readers of their own culture and be able to use analysis and historical context to interpret cultural practices, artifacts, and documents of various kinds.

They should appreciate the many ways of knowing, including the arts, the humanities, and the natural, applied, and social sciences; they should be aware of how these disciplines help define and shape the world; and they should understand the joy and wonder that can arise from rigorous inquiry leading to fresh discoveries and modes of expression in these fields.

They should be able to appreciate basic ecological and physical processes, how their lives are affected by environmental trends and characteristics, and how each of us shares in the responsibility for sustaining the life forces, cycles, and processes upon which all life depends.

They should understand the nature of at-risk behaviors and be able to make informed decisions about their own well-being.

They should be able to communicate effectively, both orally and in writing, think critically and creatively, and use effectively both information technology and the skills of quantitative decision making.

They should know how to work in teams, take responsibility, exercise leadership, and manage resources effectively.

They should be aware of the world's complexities beyond their own set of experiences and assumptions, have an appreciation for other peoples' values and customs, and think effectively about ethical and social issues.

They should have the capacity for self-education so they can enjoy a lifetime of continuous learning.

They should be responsible citizens committed to fostering the ideals of a democratic society: civic and social participation, free inquiry and informed decision making, and equal opportunity.

## Programs of Study

## Baccalaureate <br> Degree Programs

The University of Southern Maine offers baccalaureate degree programs as well as graduate and professional degrees in law, nursing, applied immunology, business, computer science, American and New England studies, creative writing, school psychology, education, counseling, health policy and management, community planning and development, occupational therapy, social work, statistics, biology, leadership studies, music, and public policy and management. For further information regarding graduate programs, please refer to the graduate catalog.

```
College of Arts and Sciences
    Art (B.A. or B.F.A.) Linguistics (B.A.)
    Biochemistry (B.S.) Mathematics (B.A.)
    Biology (B.S. degree, including Media Studies (B.A.)
        pre-med, pre-dental,
        pre-pharmacy, and pre-vet)
    Chemistry (B.A. or B.S.)
    Communication (B.A.)
    Criminology (B.A.)
    Economics (B.A. or B.S.)
    English (B.A.)
    French (B.A.)
    Geography-Anthropology (B.A.)
    Geosciences (B.A. or B.S.)
    History (B.A.)
Music (B.A. or B.M. in
    performance or music
    education)
Philosophy (B.A.)
Physics (B.A.)
Political Science (B.A.)
Psychology (B.A.)
Self-Designed Major**
Social Work (B.A.)
Sociology (B.A.)
Theatre (B.A.)
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Liberal Studies: Teachers K-8
Certification Program
**Self-Designed Major: Approval of the program must be given by the Self-
Designed Major Committee after students have enrolled at the University.
Potential programs include:
Classics (Classical Humanities, Classical German Studies
Languages, and Latin for Teachers) Hispanic Studies
Foreign Languages International Studies
French Studies Russian Studies
General Science Social Science
Lewiston-Auburn College
Arts and Humanities (B.A.)
Leadership and Organizational Studies (B.S.)
Natural and Applied Sciences (B.A.)
Social and Behavioral Sciences (B.A.)
School of Applied Science, Engineering, and Technology
Applied Technical Leadership (B.S.)
Computer Science (B.S.)
Electrical Engineering (B.S.)
Environmental Safety and Health (B.S.)
Environmental Planning and Policy (B.A.)
Environmental Science (B.S.)
Industrial Technology (B.S.)
Mechanical Engineering (B.S.)
Women and Gender Studies
Women and Gender Studies (B.A.)

This University also offers the first year of the four-year program common to other engineering majors and the first and second years in civil engineering and mechanical engineering. These offerings meet the general requirements of the corresponding programs at the University of Maine in Orono. The University of Maine extends preferred transfer consideration to Maine residents.

College of Nursing and Health Professions
Nursing (B.S.)
Recreation and Leisure Studies (B.S.)
Health Sciences (B.S.)
Radiation Therapy (B.S.)
Athletic Training (B.S.)
Exercise Science (B.S.)
School of Business
Accounting (B.S.)
Business Administration (B.S.)
Finance (B.S.)
General Management (B.S.)
Marketing (B.S.)
Sport Management (B.S.)
For further information regarding these programs, please refer to the appropriate school or college section of this catalog.

Minors
Several colleges and schools offer minors. Many of these minors can be taken by students outside the college or school in which their major is declared. Students should consult with their advisors before electing a minor program. In some cases, students need specific permission of both the college or school in which they are majoring and the department through which the minor is offered. Consult the department sections in this catalog for information.
College of Arts and Sciences
Anthropology
Archaeology
Art History
Biochemistry
Biology
Chemistry
Classical Languages
Communication
Criminology
Deaf Studies
Economics
English
French
Geography
Geography (Planning)
Geosciences
German
The Greek World
History
Labor Studies
Latin
Linguistics
Mathematics
Music
Philosophy
Physics
Political Science
Religious Studies
The Roman World
Russian
Sociology
Spanish
Statistics
Theatre
Writing
School of Business
Accounting
Business Administration
Information Management
School of Applied Science, Engineering, and Technology
Computer Science
Electrical Engineering
Electro-Mechanical Systems
Environmental Science
Environmentas Sustainability
Industrial Management
Information and Communications Technology
Manufacturing Technology
Mechanical Engineering
Nature Tourism
Precision Manufacturing
Toxicology and Environmental Health
College of Nursing and Health Professions
Holistic and Integrative Health
Nature Tourism
Recreation Leadership
Lewiston-Auburn College
Early Childhood Studies
French North American Studies
Global Studies
Information Systems
Leadership Studies
Women and Gender Studies
Women and Gender Studies
Women and Gender Studies
Undergraduate
Art Education (K-12)
German, Latin, or Spanish Education (K-12)
Music Education (K-12)
Secondary Mathematics (7-12)
TEAMS: Teachers for Elementary and Middle Schools (K-8)
TEAMS Unified (K-8 and K-8 special education)
TEAMS Unified ESL (K-8 and K-12 ESL)
Graduate
Teaching and Learning, M.S.Ed. (ETEP: Extended Teacher Education Program)
Options:
Elementary (K-8)
Secondary math, social studies, English, life science, or physical
science (7-12)
Foreign Language (K-12)
Unified (K-8 and K-8 special education)
Unified Secondary (7-12 and 7-12 special education)
Unified K-8 ESL (English as a Second Language) (K-8 and K-12 English
as a Second Language)
Cerementary Special Education (K-8)
Secondary Special Education (7-12)

For the complete listing of graduate programs, see the graduate catalog at www.usm.maine.edu/catalogs/graduate.

## Undergraduate Admission

The University of Southern Maine is an academic community that welcomes applications for admission from qualified women and men with various backgrounds and interests regardless of race, color, religion, gender, sexual orientation, national origin or citizenship status, age, physical or mental disability, or veteran status. The University seeks candidates whose academic achievement and motivation indicate potential for success in an undergraduate program. The Office of Undergraduate Admission invites prospective students to visit the campus to discuss their educational interests. The Office will provide information about academic programs, discuss admission requirements and procedures, and arrange personal interviews and campus tours. Prospective students are encouraged to contact the Office of Undergraduate Admission at 1-800-800-4USM, or (207) 780-5670. For more information on Lewiston-Auburn College, call (207) 753-6560.

Admission Requirements

With the exception of early admission applicants, a high school diploma or General Equivalency Development (GED) certificate is required for admission to the University. Students who are home educated/home schooled should contact the Office of Undergraduate Admission for specific information regarding the alternate documentation required for admission. Although secondary school preparation may vary, please find below the minimum college preparatory subjects required for regular admission to the University. In addition to these, further requirements may be imposed by individual University schools and colleges.

## General subject minimum requirements (University-wide) <br> English 4 units <br> Mathematics 3 units (Algebra I, II, and Geometry) <br> Science 2 units (with lab) <br> History/Social Science 2 units

## Highly Recommended College Preparatory Course

While minimal admission requirements are listed as 4 units English, 3 units math (algebra I and II and geometry), 2 units of science with lab, and 2 units of history/social studies, an optimal college preparatory course of study extends beyond these minimum requirements. Students who do best in college and graduate on time have the following high school course of study:

1. Four years of English in courses that present a variety of readings (fiction, nonfiction, essays, memoirs, journalism) and emphasize expository and analytic writing about texts.
2. At least three years of laboratory science that include the study of biology, chemistry, and physics, offered as separate courses or as an integrated core. Science courses should include writing technical reports and quantitative representations and analyses of data as well as the traditional course content.
3. Four years of math that include algebra I and II and geometry; a college preparatory math course during the senior year.
4. Three years of history and social science that include reading primary as well as secondary texts, writing analytic and expository essays, and using quantitative social science data, in addition to the traditional course content.
5. Two years of study in one language other than English.

Applicants to the Women and Gender Studies program must also have: Foreign Language* 2 units (one language)
*ASL may be substituted for this.
Applicants to the College of Arts and Sciences must also have:
Foreign Language* 2 units (one language)
Science candidates must have three units of lab science. Foreign language candidates must have three units of a foreign language. Mathematics candidates must have four units of mathematics.
*ASL may be substituted for this.

Special Note: For specific admission requirements for the degree programs in music, please refer to the School of Music section of the catalog.

## Applicants to the College of Nursing and Health Professions

Nursing, athletic training, exercise physiology, health fitness, and health sciences candidates must have laboratory biology and chemistry. In addition, nursing candidates must also satisfy specific academic standards in order to qualify for the clinical portion of the degree program. For further details, please refer to the College of Nursing and Health Professions section of this catalog.

## Applicants to the School of Business

A fourth year of college preparatory mathematics (trigonometry, pre-calculus, etc.) is required.

## Applicants to the School of Applied Science, Engineering, and Technology

Engineering candidates must have chemistry, physics, and four units of mathematics. Environmental science candidates must have three units of lab science.

## Applicants to Lewiston-Auburn College

Lewiston-Auburn College applicants must meet all University general subject requirements. Applicants should make an appointment with a USM advisor at Lewiston-Auburn College, (207) 753-6560.

## Admission Procedures, Policies

## Admission Applications

All applicants for admission are reviewed on a case-by-case basis; because admission to the University is selective, the academic profile required for acceptance may vary from one semester to the next. Please find below the guidelines and procedures for applying to the University for undergraduate admission. All applicants for undergraduate admission are encouraged to apply online at www.usm.maine.edu/admit.

All students whose native language is not English should submit official results of the Test of English as a Foreign Language (TOEFL).

Secondary School Applicants Secondary school students are required to submit the following to the Office of Undergraduate Admission:

1. A completed University of Maine System application accompanied by the nonrefundable $\$ 40$ application fee. The Common Application is also accepted.
2. Official copies of all secondary and post-secondary school transcripts.
3. Official SAT or ACT results.*
4. Letter of recommendation from a guidance or college counselor.*
5. Completed personal statement.
*Transfer and Adult Applicants Students who have been out of high school for three or more years or have earned 30 or more credits at the time of application are not required to submit standardized test scores (SAT or ACT). Although SAT or ACT scores are not required for admission of transfer and adult candidates, they may be submitted for placement purposes as such scores (if not more than five years old) may be used to declare college readiness. Transfer and adult applicants are not required to submit a guidance/college counselor recommendation.

International Applicants International applicants must complete the University of Maine System application and submit it, along with the $\$ 40$ application fee, to the University of Maine Application Processing Center. Applicants whose native language is not English are required to submit scores of the Test of English as a Foreign Language (TOEFL), unless the applicant is applying for the Intensive English Language Program with Conditions (please see section, 'Admission Decisions,' below). Although USM encourages international student applicants to complete and submit results of the SAT or ACT, these standardized tests are not required for admission. Due to limitations on available financial aid, applications are encouraged only from international students who are able to fund their educational expenses fully from their own resources. To certify this, a Declaration of Finances statement must be filed as part of the application process. This form must be fully documented and certified and should accompany the completed application.

Early Admission Applicants Students who have completed their junior year of high school may apply for consideration of admission (as a non-matriculated student) under the Early Admission Program. Undergraduate Admission will consider high-achieving students who display both the intellectual ability and the social matu-

## Priority Dates and Deadlines

rity to succeed in a university course of study.
To be eligible for admission, candidates must have completed a minimum of three years of college preparatory subjects in high school according to the general University admission requirements, and submit test results of the Scholastic Assessment Test (SAT) or the ACT examination.

Interested applicants will be required to submit the University of Maine System application in addition to an Early Admission Application, which must be signed by the student, parent/guardian, guidance counselor, and principal. Early admission candidates may be required to have a personal interview with a member of the admission staff. High school students who enter the University of Southern Maine prior to graduation from high school are not eligible for federally funded financial aid and may not participate in intercollegiate athletics.

It is expected that Early Admission applicants will apply for the fall semester only. Application forms must be submitted by April 15.

Applications are reviewed throughout the year on a rolling admission basis. However, the priority deadline for the fall semester is February 15 , and for the spring semester, December 1 . All students applying for the fall semester who wish to be considered for academic scholarships must have a completed application on file by February 1. Nursing applicants are admitted for the fall semester only with an application deadline of January 15 for transfer students and an application deadline of February $\mathbf{1 5}$ for first-year students. The $\$ 100$ admission deposit deadline to reserve space for the fall semester is May 1.

Although applications are reviewed on a rolling basis, as some degree programs admit only a limited number of students, applicants are urged to submit their credentials at their earliest possible convenience in order to receive consideration. Applications may be made to enter the University in the fall or spring semester only. Offers of admission may be revoked because of unsatisfactory performance in the final semester of high school or college.

Admission to the University is offered for a specific semester. Anyone choosing to defer his or her offer of admission may do so by submitting a written request to the dean of Undergraduate Admission. Deferments are granted for up to one year.

Admission<br>Decisions

The University recognizes that its prospective students may come with differing academic backgrounds and/or with significant time having elapsed since completion of secondary school. The following categories of admission exist to accommodate this wide range of applicants.

Regular Admission Applicants whose academic backgrounds demonstrate the ability to pursue regular, entry level coursework may be granted regular acceptance to the University. This admission decision is based upon a comprehensive evaluation of the student's educational record, including standardized test scores (if required), as well as individual talents and activities.

Enrollment as an Undeclared Major Applicants who are undecided regarding their major field of study may request admission as an "Undeclared Major." Undeclared students are assigned an academic advisor in Advising Services to assist with appropriate course selection and academic planning while exploring a major field of study. This admission option provides students the opportunity to select their major at an appropriate time during the first 60 credit hours of coursework.

Granted Admission to GO Applicants whose academic credentials are not complete in some way (e.g., missing academic units, low SAT or ACT scores), but who show significant promise, may be granted acceptance to GO, an academic success and support program. Students are fully admitted to the University, and pursue their first year of study under the direction of the Advising Services Office. Students who are admitted to GO are required to fulfill terms of an academic support plan that outlines their responsibilities. Students admitted to GO are expected to meet the requirements of their academic support plan within their first 30 credit hours.

To achieve transition to regular status, the student must complete the minimum college readiness requirements of the University as well as successfully complete a minimum 12 credit hours of 100 -level coursework (including College Writing), complete a learning strategy and decision-making course, and have a minimum grade point average of 2.0. Transition to regular status prior to completion of 12 credit hours may be approved if the student earns an exceptional grade point average. The student's assigned academic advisor will assist in completing the transition.

All applications are considered for regular admission to the University. As part of
the review process, the Undergraduate Admission Committee will determine which applicants are to be offered admission to GO.

English Language Bridge Program Students applying to the University who meet regular admission requirements but whose TOEFL scores fall below the required level may be eligible for admission to the University through the English Language Bridge Program offered through the ESOL Department. For further information on the English Language Bridge Program contact Bart Weyand, program director, 101 Payson Smith Hall, Portland.

Intensive English Language Program with Conditions The Intensive English Language Program with Conditions is for students whose first language is not English and who are seeking admission to USM. Students are considered for this program if they are academically qualified, may or may not have taken the TOEFL exam and still need a semester or two of English language instruction. Students will be admitted with the condition that they successfully complete at least one semester of Intensive English courses prior to enrolling in other courses offered at USM. For further information on the Intensive English Language Program with Conditions contact the program director located in 101 Payson Smith Hall, Portland.

Enrollment as a Non-matriculated Student The University encourages members of the local community to take advantage of its diverse course offerings. Nonmatriculated students (those not enrolled in a degree program of study) may take regular credit courses for self-interest and enrichment. Non-matriculated students are enrolled each semester on a space-available basis and are not eligible for student financial aid awards, guaranteed student loans, veterans' benefits, campus housing, or participation in intercollegiate athletics. Interested persons are invited to contact Advising Services, Payson Smith Hall in Portland for further information.

Non-matriculated students are required to meet the same academic progress standards as matriculated students. In order to apply credits earned at the University of Southern Maine to a degree, the student must be admitted into a degree program as a result of the application process.

Readmission Matriculated degree candidates maintain their matriculation status for ten calendar years from the first semester of attendance at the University of Southern Maine. If a student has been academically dismissed from the University or if a student wishes to resume studies after the ten-year period has elapsed, she or he must apply for readmission. Readmission applicants should contact the Office of Undergraduate Admission for the proper forms. The Reactivation/Readmission application is available at the following Web site: www.usm.maine.edu/admit/howtoapply.html.

## Transfer Admission

Applicants who have attempted 12 semester hours of credit or more beyond the secondary school level are considered transfer students and must submit official copies of collegiate and secondary school records. SAT or ACT test results are required for students who have been graduated from high school for less than three years. Transfer candidates who have previously completed ten or more courses (30 credits) at the time of application may forego submitting standardized (SAT or ACT) test scores. Quality points and grade point average do not transfer.

Students applying for transfer from regionally accredited institutions of higher education must have a grade point average of at least a 2.0 (on a 4.0 scale) to be considered for admission. Some academic programs require higher grade point averages. Transfer credit may be awarded for coursework completed at a regionally accredited institution of higher education. Courses graded C- or higher are considered for transfer credit.

Students applying for transfer from non-regionally accredited institutions of higher education must have a minimum 2.75 grade point average (on a 4.0 scale) to be considered for admission. No transfer credit will be awarded for coursework completed at non-regionally accredited institutions of higher education. Under special circumstances, students may, in individual cases, petition the dean of the appropriate school or college for consideration of coursework earned from institutions that were candidates for accreditation.

From Within the University of Maine System Trustee policy is to provide the maximum opportunity for transfer within the University of Maine System. When a student is accepted for transfer, all undergraduate credits successfully completed with a grade of C- or better at any unit of the University System will be transferable to any other unit of the University System, but will not be automatically applied to the specific academic degree program to which the student has transferred. Each student will be expected to meet the established requirements of the academic program

University of Maine System Transfer Practices

Transfer Credit Evaluation

into which transfer is made, and appropriate application of transfer credit is to be the responsibility of the particular academic unit.

Generally, course grades do not transfer from institution to institution. Semester and cumulative grade point averages reflect only those courses taken at the home institution. Exceptions to this policy are approved by the vice chancellor for Academic Affairs. Students in external degree programs and/or those taking courses at distant sites and centers should inquire about any exceptions which may apply.

Grades of C- or better in courses taken within the University of Maine System and accepted for transfer credit will be recorded on the student's transcript although not computed into the cumulative grade point average.

All undergraduate courses successfully completed with a C- or better at one University of Maine System institution will transfer to another.

Each student must meet the established requirements of the academic program or college into which she or he is transferring. Transfer credits do not necessarily count toward such requirements.

Transfer students must consult the individual institution catalog to determine requirements regarding the number of degree credits that must be taken through the degree-granting institution.

Transferring students will be expected to provide official transcripts reflecting all previous postsecondary coursework.

Each accepted transfer student will receive a written evaluation of transfer credit. The transfer student should then meet with program faculty/advisors at the receiving institution to review how the transfer credit will be applied.

Course credit will be transferred only for coursework delivered by regionally accredited institutions, through AP or CLEP, or through life experience (i.e., prior learning or other learning such as military training, etc.) when validated through the approved campus processes.

Course credit from international institutions will be accepted for transfer consistent with established institutional policies.

If a student disagrees with a decision made in regard to the transfer of his or her credits from one institution to another, the student may appeal through the regular academic appeals process at the receiving institution.

Evaluation of Transfer Credits Undergraduate coursework completed at other institutions of higher education will be evaluated for transfer credit on the basis of the following: whether or not the previous institution was regionally accredited at the time of attendance; grades achieved in previous coursework; comparability of courses taken with courses at the University. Courses for which credit is awarded through another institution's credit by examination policy may be granted transfer credit provided both earned credits and grades appear on the transcript and the course is applicable to the student's work at this University. The applicability of transfer credits to USM's Core curriculum and to a student's intended major field of study shall be determined by the Transfer Affairs Office in conjunction with the appropriate academic department, school, or college. Transfer evaluations are assumed to be correct if a student does not direct questions to or enter an appeal with the Transfer Affairs Office within one year of the completion of the evaluation. At that time, the evaluation becomes permanent and will not be changed.

The University of Southern Maine has formal articulation agreements in certain academic disciplines with the Maine Community College System. In addition, USM participates in AdvantageU, a guaranteed admission program for qualified Maine Community College students who elect to participate. These agreements facilitate transfer to USM for graduates from specific associate degree programs. For more information, students should contact either the academic department at USM to which transfer is being considered, or the USM Transfer Affairs Office.

Placement Examination Program SAT and ACT scores (if not more than five years old) are used for course placement in mathematics and English. All newly admitted degree candidates whose SAT mathematics score was below 550 or ACT mathematics score was below 22 must take the placement examination. Newly admitted students with SAT or ACT scores that are five years or older must take the placement examination. Students who transfer credits from another institution may

Prior Learning Assessment

## Preprofessional Programs

meet college readiness in mathematics and English as determined by the Transfer Affairs Office. Non-matriculated students are encouraged to take the placement examination and should contact the Office of Academic Assessment for details. For more information on the Placement Examination Program, go to www.usm.maine.edu/assessment. NOTE: Placement exams will not be used in place of SAT/ACT results for admission purposes.

The Office for Prior Learning Assessment (PLA) believes that students should be rewarded for knowledge acquired outside the traditional classroom if it fulfills the academic criteria set forth and evaluated by the USM faculty.

PLA is a process that builds a bridge between students' practical, applied learning experiences and their theoretical, college-level knowledge. There are several pathways across this bridge: testing options, credential reviews, military evaluations, and academic portfolio development, paving the way to academic credit where appropriate. Proof of competency rests with the student. Transcripts older than twenty years cannot be used for credit.

For further details regarding credit options, students should contact the Office for Prior Learning Assessment at www.usm.maine.edu/pla.

Advanced Placement The University participates in the Advanced Placement program (AP) of the College Board. AP exams are given in secondary schools. For credit consideration at USM, an official AP transcript and a minimum score of 3 are required.

International Baccalaureate The University recognizes IB and is committed to considering credit for students who score 5 or better on the Higher Level exams. No credit is offered for Standard Level IB exams. An official score transcript must be sent from the IB Organization to the Office for Prior Learning Assessment for evaluation.

Standardized Examinations College Level Examination Program (CLEP) and DANTES exams are used for either course-equivalency or elective credits. For credit consideration at USM, an official transcript must be submitted and cut-off scores must be achieved. Several Excelsior College exams are also recognized for credit. PLA also offers credit for 50 language exams through the NYU external testing program. For more information on all these options, visit the PLA Web site at www.usm.maine.edu/pla.

Academic Portfolio Assessment Program The academic portfolio is a formal collection of evidence in support of a person's claim for college credit. The process is reflective and challenging yet rewarding. To earn course equivalency credit or elective credit with an academic department through portfolio assessment, the candidate's documentation must prove understanding and learning competency, subject to evaluation by appropriate faculty. Academic portfolio assessment may also be used to earn general elective credit, which can be earned regardless of one's academic major. Applicability of credits toward meeting graduation requirements varies by school and college within the University.

Credential Review Credential review requires original and current documentation for individualized learning situations, submitted for college credit, reviewed by appropriate USM faculty or in consultation with national guidelines. All credentials are considered on a case-by-case basis. PLA reviews professional certifications, educational and training courses, and certain college-level experiential learning that may have earned selected licenses, certificates, and/or credentials for organizations outside the University.

Creditfor Military Service Students who have been active members of the armed services may qualify for credit based upon American Council on Education (ACE) guides. Official service documents are required for credit consideration.

Challenge Examination Program Challenge exams may be developed individually by faculty members for USM students in coordination with the Office for Prior Learning Assessment. These exams are used selectively and may result in the student earning equivalency course credit.

Pre-Law There is no specific course of study required of students who are planning to apply to law schools. Since the practice of law covers all fields, the only recommendation that law school admissions officers give to students is that they pursue challenging courses in areas of interest to them and that they do well in these
courses. Participation in an honors program definitely enhances a student's admission as does a well-written senior thesis or an independent study.
a) Students must be able to write clearly. They should take upper level, writing intensive courses in English or other fields.
b) Students must be able to think clearly and critically. Courses in philosophy, science, and language will be helpful.
c) Students should understand the social and political context within which the law exists. Courses in sociology, history, and political science are appropriate.
d) Students may wish to take substantive courses in the law and in legal reasoning. Courses in law and society, civil liberties, civil rights, constitutional law, business law and the rule of law-some of which are offered as undergraduate courses by professors from the University of Maine Law School-may be of interest.
Students who are interested in law should be advised that their overall academic record and performance on the LSAT are much more important than a specific undergraduate major for law school admission.

Students should meet with USM's pre-law advisor early in their undergraduate careers to discuss the legal profession and design a path to law school admission. Students should also become active members of USM's Pre-Law Society. For more information, contact Larry Bliss at (207) 780-4199 or e-mail bliss@usm.maine.edu.

Pre-pharmacy Program A two-year, non-degree program of study is offered to prepare students to apply to a four-year doctoral program in pharmacy (a $2+4$ program). Most schools and colleges of pharmacy require 60-75 credits in their twoyear pre-pharmacy phase, depending on the number of general education credits required. Individual programs vary in the general education courses they require, e.g., economics, social science, humanities, and fine arts, so students should consult those programs accordingly. The pre-pharmacy concentration is a time-intensive program that students will need to commit to upon entering the University. Students are encouraged to take summer courses to reduce the number of credits taken each semester. If students choose not to take summer courses, they should consider extending the program to three years. If they do well in this program of study, they will be competitive with students from other universities applying for entry into professional pharmacy programs. If students decide not to transfer after two years, they will be well along the path toward earning a B.S. in biology degree. For further information contact Patricia O'Mahoney-Damon, 221 Science Building, Portland.

Pre-Medical, Pre-Dental, Pre-Veterinary USM, like most universities, does not have a major in pre-medical, pre-veterinary, or pre-dental studies. USM offers a degree in biology with a concentration in human biology. By completing the concentration in human biology a student will have completed all the required courses for admission to professional school and many of the recommended courses. Preveterinary students should complete the general biology degree. Most students who are accepted in a professional school majored in biology or zoology as undergraduates. However, a student does not have to major in science to be accepted to medical, dental, or veterinary medicine school. Approximately one-third of all students accepted to professional schools took the required science courses as electives while pursuing their undergraduate degrees in non-science fields.

Every undergraduate course taken is important regardless of its subject area. Admissions officers in professional schools pay particular attention to the overall academic record and performance on entrance exams when evaluating a candidate's application for admission.

It is also important to have experience in the field of medicine. Most veterinary schools require some type of animal care experience, e.g., volunteer work in an animal hospital. Many medical schools require some type of patient-care experience (EMT, volunteer work in an emergency room).

As minimum entrance requirements, most professional schools recommend:
1 year of college biology with lab (BIO 105K, 106K; BIO 107, 108)
1 year of inorganic chemistry with lab (CHY $113 \mathrm{~K}, 114 \mathrm{~K}$; CHY 115, 116)
1 year of organic chemistry with lab (CHY 251, 252; CHY 253, 254)
1 year of physics with lab (PHY $111 \mathrm{~K}, 114 \mathrm{~K}$ or PHY $121 \mathrm{~K}, 114 \mathrm{~K}$ )
1 semester of mathematics (statistics recommended)

Some recommended courses are:
Psychology (PSY 101J)
Genetics (BIO 301)
Microbiology (BIO 311, 312)
Comparative or Human Anatomy (BIO 205 or 211/212)
General or Human Physiology (BIO 401/402)
Human Anatomy and Physiology. (BIO 111)
For more information, please contact Patricia O'Mahoney-Damon, (207) 7804263, or pato@usm.maine.edu.

## New England Regional Program

## Immunization <br> Requirement

## E-mail Communication Policy

In cooperation with the New England Board of Higher Education (NEBHE) the University offers undergraduate and graduate programs of study at reduced rates of tuition to qualified candidates from the New England states. Because the listing of programs varies from year to year, candidates should check the most up-to-date listings. The following schedule represents the fields of study available at the University in the New England Regional Student Program for 2009-2010. The 2010-2011 listing will be available during the spring of 2010. Further information is available through a guidance counselor or NEBHE at 45 Temple Place, Boston, Massachusetts 02111.

| Undergraduate Programs |  |
| :--- | :--- |
| Athletic Training | RI |
| Criminology | NH, RI |
| Environmental Safety and Health | CT, NH, RI, VT |
| Health Fitness | VT |
| Industrial Technology | RI, VT |
| Linguistics | CT, VT |
| $\quad$ (including concentration in American Sign |  |
| $\quad$ Language) |  |
| Musical Theatre | MA |
| Natural and Applied Science | CT, VT |
| Recreation and Leisure Studies | MA, RI, VT |

Undergraduate Programs
Athletic Training
Criminology
Environmental Safety and Health
Industrial Technology
Linguistics
RI, VT
(including concentration in American Sign
Language)
Musical Theatre
CT, VT
Recreation and Leisure Studies

## Graduate Programs

See listing in Graduate Catalog at www.usm.maine.edu/catalogs/graduate.
Maine State law requires all individuals born after December 31, 1956, who plan to enroll in a degree program or plan to take 12 or more credits, to show proof of immunity against measles, mumps, rubella, diphtheria, and tetanus before registering for classes. Immunization records must be on file with University Health Services before students will be allowed to register for classes.

Specific information about immunization requirements can be found at www.usm.maine.edu/health.

In order to meet the academic and administrative needs of the University community, the University has established e-mail as an official and primary means of communication to its students, accepted and/or enrolled. In some cases, e-mail may be the only form of communication. Official University assigned e-mail accounts are created for all accepted and/or enrolled students usually in the form of FirstName.LastName@maine.edu. Students are responsible for reading all information sent to them via their University assigned e-mail account. The University has the right to expect that such communications will be received and read in a timely fashion.

It is imperative that students understand that a majority of University information will be communicated to them via their University assigned e-mail account. Confidential information will not be sent via e-mail. If the University needs to convey sensitive information to the student and the information cannot be conveyed using the password protected student self-service venue, the University will send the information via United States Postal Service.

The University reserves the right to notify students via e-mail when any action on the students' part may be necessary. Some actions can be accomplished using the University's Student Information Systems that are made available through special password-protected links. Students should activate their assigned e-mail account at mail.maine.edu. For assistance in activating your University Account, visit www.usm.maine.edu/computing/networking/unet.jsp or contact the HelpDesk at (207) 780-4029, or Helpdesk@usm.maine.edu. The complete E-mail Communication Policy can be found at www.usm.maine.edu/doit.

## Financial Information

Tuition rates are established by the University of Maine System Board of Trustees. The University reserves the right to adjust all charges in response to changing costs, state and/or federal legislative action, and other matters. Such adjustment may be made at any time. A student acknowledges this reservation by applying for admission or registering for courses.

There are three types of tuition charged: undergraduate, graduate, and law. The level of the course determines the type of tuition charged. Tuition charges are calculated by multiplying the number of credit hours attempted by a rate established by the University. Courses being audited are included in this calculation.

## Tuition

| Charges in effect as of July 1, 2009 |  |
| :--- | ---: |
| Undergraduate Tuition Charges Per Credit Hour |  |
| $\quad$ Maine Resident | $\$ 231.00$ |
| Non-Maine Resident | $\$ 638.00$ |
| New England Regional Program | $\$ 347.00$ |
| Canadian Resident | $\$ 347.00$ |

Fees
Activity Fee Students taking undergraduate courses are assessed a mandatory student activity fee. The amount charged depends on the number of credit hours attempted. Students taking graduate courses are not assessed this charge. Students registering for undergraduate courses taught at Lewiston-Auburn College or University of Maine System Off-Campus Centers are charged $\$ 1.50$ per credit hour.

| Credits Attempted | Fee |
| :---: | :--- |
| $1-5.5$ | $\$ 18.00$ |
| $6-11.5$ | $\$ 35.00$ |
| $12+$ | $\$ 52.00$ |

Application Fee A $\$ 40.00$ fee is charged when a student applies for admission to an undergraduate program. A $\$ 50.00$ fee is charged when a student applies for admission into a graduate or law degree program.

Community Standards Fee A $\$ 35$ fee is charged to any student who is sanctioned under the Conduct Code.

Course Fees A mandatory fee is assessed for some courses. These fees cover costs associated with specialized instruction. Additional information is provided in University course listings.

Distance Learning Course Support Fee Students registering for ITV and videoconferencing courses are assessed a $\$ 7.00$ per credit fee to defray mailing costs.

Online Course Enrollment Fee Students registering for classes offered via the World Wide Web are assessed a $\$ 25$ per credit hour fee.

Enrollment Fee A mandatory $\$ 150.00$ fee is charged to newly admitted undergraduate students. This fee is only charged once.

Installment Payment Fee A $\$ 30.00$ fee is charged to students participating in the University's three, four, and/or five payment plans.

Insufficient Funds Fee A $\$ 25.00$ fee is charged when a student's check is returned or a bank card payment is declined for insufficient funds.

Late Fee A $\$ 50.00$ late fee, up to a maximum of $\$ 200.00$ per semester, is assessed to student accounts not paid when bill is due.

Reactivation Fee A mandatory $\$ 20.00$ fee is charged to students who have previously applied for admission but did not complete the admission process, or who leave for several years and wish to become degree candidates again.

Specialty Accreditation Fee A $\$ 9.00$ per credit hour fee is assessed to students enrolling in upper-level undergraduate courses ( 300 level and above) offered by the School of Business.

Student Health and Counseling Fee A mandatory $\$ 80.00$ health fee is charged students registered for six or more credits of instructional activities emanating from the Portland and/or Gorham campus for fall and spring semesters. Such activities include independent study, internships, field experiences, etc. Credits for regular classes taken at off-campus locations are omitted when determining this fee.

Optional coverage is available to students who register for fewer than six credits and/or during the summer.

For more information about the services covered by the student health and counseling fee and the cost for enrolling after the four-week open enrollment period, contact University Health Services.

Student Health Insurance (Optional) Students may purchase optional insurance plans under policies made available by contract with the University of Southern Maine. These plans can provide financial coverage for health care costs incurred through University Health Services, family physicians, or other health care providers.

A moderate cost, 12-month basic insurance plan is available to students registered for six or more credit hours. Students who have enrolled in the prior academic year must re-enroll each year and cannot re-enroll in the basic plan if not a USM student.

An extended health care insurance plan is also available to students registered for three or more credit hours who want financial coverage for potential severe or catastrophic health problems. The extended care plan reimburses only after the first $\$ 10,000$ of health care is already paid by the student or any basic insurance plan. Further information about either policy and coverage is available through University Health Services.

Academic and Assessment Fee A $\$ 20.00$ per test fee is assessed to non-matriculated students taking the math placement exam.

Transportation Fee A mandatory semester fee charged to all students taking courses on the Portland and/or Gorham campuses. It funds parking and transportation related projects, as well as busing between campuses.

| Credit Hours | Fee |
| :--- | :--- |
| $0.1-5.99$ | $\$ 50.00$ |
| $6.0-11.99$ | $\$ 75.00$ |
| $12+$ | $\$ 100.00$ |

Note: Lewiston-Auburn College Parking Fee: A $\$ 3.00$ per credit hour fee is assessed to students registered for courses held at Lewiston-Auburn College.

Unified Fee The unified fee of $\$ 26.00$ per credit hour covers fixed costs of providing educational services not already supported by tuition.

Board The University offers a variety of meal plans. Information about the meal plans is available from the Department of Residential Life and Resident Education, 100 Upton Hall, Gorham (780-5240).

USM Meal Plans The University offers seven different resident student meal plans. See the Residential Life and Resident Education Web site for details: www.usm.maine.edu/reslife.

Commuter Only Meal Plans Commuter meal plans allow students to purchase food at a discount. Information about the plans is available from the Department of Residential Life and Resident Education and Dining Services.

Room University residence halls are located on the Gorham campus. Information about housing is available from the Department of Residential Life and Resident Education, 100 Upton Hall, Gorham (780-5240).

While the student is billed by the semester, the housing contract is for the full academic year. Please see the Residential Life Web site at www.usm.maine.edu/reslife for current room types and rates.

There may be an additional charge for living in a room which is under-capacity. That charge is approximately one-third of the base rate.

Books and Supplies Students are responsible for the purchase of books and supplies. Payment is made at the time of purchase.

When a student is notified of acceptance into a University degree program, a $\$ 100.00$ acceptance deposit is due within four weeks. Students who apply for oncampus housing must also pay a $\$ 75.00$ room deposit.

After a student registers, these deposits are applied to his or her account. These deposits are forfeited if an applicant for September admission withdraws after May 1 (June 1 for room deposits), or if an applicant for January admission withdraws after January 1. Applicants who provide the Office of Admission with written notification of withdrawal before the previously mentioned dates will have the deposit refunded. Housing applicants must notify Residential Life in writing before the deadlines to receive a deposit refund.

The Department of Residential Life and Resident Education establishes and publicizes dates for room selection each spring. Students who are registered for spring

## Payment Procedures and Policies

semester and apply for on-campus housing for fall are required to pay a $\$ 75.00$ room deposit. Usually, this deposit is applied to the fall bill. If a student notifies the Department in writing before June 1 that housing is not desired, this deposit will be refunded. If notification is received after June 1, the deposit is forfeited.

Billing Students can access MaineStreet billing statements, specific semester payment due dates, and other important Student Billing information at www.usm.maine.edu/buso. The University is not obligated to mail paper billing statements.

It is critical that official University e-mail accounts are checked often by all students. In many cases, it will be the only means of receiving important information from Student Billing and other University departments.

It is the student's responsibility to ensure that all addresses recorded on MaineStreet are correct.

How To Make Payment The University offers a variety of payment options. These include:

ACH (electronic check) ACH payments can be made online on MaineStreet.
Cash Cash payment may be made at the Student Billing Office or at an off-campus center. Cash should not be mailed.

Checks Paper checks should be made payable to the University of Southern Maine (USM). The student's name and student I.D. number should be shown on the check.

Credit Cards USM uses an outside vendor to process MasterCard, American Express, and Discover card payments. The student is charged a convenience fee by the vendor.

Financial Aid from USM The University offers eligible students grants, scholarships, loans, and employment opportunities. Grants, scholarships, and loans are credited for payment of University charges. Additional information can be obtained from Student Financial Aid.

Installment Payment The University offers a variety of payment plans. Information about these plans is available from Student Billing.

Outside Scholarships Students must notify Student Billing of any non-University scholarships to be used to pay University charges prior to the date payment is due. Upon receipt of proper documentation, the University may extend the payment due date.

Third Party Payments A student must give Student Billing written authorization from the agency or employer prior to the payment due date. No conditional payment offers will be accepted. If, for any reason, the third party does not pay, the student is responsible for all charges.

When Payment Is Due Each semester, the University establishes specific dates payment is due and notifies students of these dates on bills, through University publications, and on the Student Billing Web site at www.usm.maine.edu/buso.

Adding Courses Costs associated with credit hours added after the semester begins must be paid at the time of registration.

Other Charges After the semester starts, additional charges must be paid as they occur.

A late fee is charged if payment is not received by the due date. Students with past due charges are not allowed to re-register. Students who show a pattern of late payment may be required to pay all University charges before registration is accepted.

The University reserves the right to cancel a current semester's registration, preventing a student from receiving grades or credit for courses, if outstanding charges are not paid.

Transcripts, certification of graduation, and other records will be withheld from students who have not paid all bills and loans due the University. This includes bills for damage to University property, and unpaid charges or fines owed to other University departments.

The schedule adjustment period begins with the first day of scheduled University classes and includes weekends and holidays. Students may add a course during the first week of the semester. For late afternoon and evening and weekend courses that meet once a week, adds will be accepted through the day following the second class meeting.

## Withdrawal Policy

A student who remains registered is not charged for any course dropped during the first two weeks of the semester. The number of times a class meets is not a factor in this determination. Students who drop after the second week receive no refund. Drops do not require an instructor's signature. They may be processed at the Registrar's Office, Advising Services Center, Lewiston-Auburn College, or a University of Maine System Center. The date the drop form is received at one of these offices is used to determine whether charges should be deducted.

The charges assessed students who withdraw from all classes at the University are adjusted in accordance with the schedules shown below. The date the Registrar receives written notification of withdrawal is used when calculating refunds. A semester begins with the first day of scheduled University classes and includes weekends and holidays.

Failure to notify the Registrar promptly will increase financial liability. A student who feels the withdrawal was caused by reasons beyond his or her control (extended illness or military service obligations, for example) may petition for special consideration. To be considered, the request must be filed within 90 days of the end of the semester involved. Charges will not be reduced for voluntary absence from classes. Contact the Student Billing Office for additional information about this procedure.

Tuition Refunds Student charges will be reduced for those who are withdrawing from the University of Maine System in accordance with the schedules and provisions set forth below.

For purposes of calculating tuition reduction, the attendance period begins on the opening day of scheduled campus classes, includes weekends and holidays, and ends on the date the student notifies the Registrar in writing that she or he is withdrawing.

| Schedules For All Students |  |
| :--- | :---: |
| ACADEMIC YEAR (Fall and Spring Terms) | Refund Percentage |
| Cancellation prior to first day of class | $100 \%$ |
| Withdrawal prior to end of second week | $100 \%$ |
| Withdrawal prior to end of fifth week | $50 \%$ |
| Withdrawal prior to end of eighth week | $25 \%$ |
| Withdrawal after the eighth week | $0 \%$ |

Summer Session Refer to the Summer Session catalog for summer drop/withdrawal policies.

Requests for exemptions to the refund policy must be filed with the executive director for Financial Resources within 90 days of the end of the semester involved.

Board Refunds Students who withdraw from the University will have meal plan refunds calculated using a formula. Please call Residential Life at 207-780-5240 for details.

Room Refunds Students who vacate University housing will be charged in accordance with the terms and conditions of the Residence Hall contract.

There are many factors that will be considered in determining residency for instate tuition purposes. No one factor can be used to establish domicile; rather, all factors and circumstances must be considered on a case-by-case basis. A domicile or residency classification assigned by a public or private authority neither qualifies nor disqualifies a student for University of Maine System (UMS) in-state status.

A student applying for admission to a degree program is classified as eligible, or not eligible, for in-state tuition at the time of acceptance to the University. A nonmatriculated (non-degree) student is classified as eligible, or not eligible, for in-state tuition at the time of registration. The decision, made by the executive director for Financial Resources, or other officials designated by the campus, (this authority is granted to all Admission directors), shall be made based on information and documentation furnished by the student and other information available to the University. No student is eligible for in-state tuition classification until he or she has become domiciled in Maine, in accordance with University guidelines, before such registration. If the student is enrolled full-time in an academic program, as defined by the University, it will be presumed that the student is in Maine for educational purposes, and that the student is not in Maine to establish a domicile. A residence established for the purpose of attending a UMS campus shall not by itself constitute domicile. The burden will be on the student to prove that he or she has established a

Maine domicile for other than educational purposes. An individual who has lived in the state of Maine, for other than educational purposes, one year prior to registration or application to a campus is considered an in-state student.

In general, members of the Armed Forces and their dependents will be granted in-state tuition during such periods of time as they are on active duty within the state of Maine or if their military state of residency is Maine as evidenced by appropriate official documentation. A Maine resident who is absent from the state for military or full-time educational purposes will normally remain eligible for in-state tuition.

A student, spouse, or domestic partner of a student, who currently has continuous, permanent full-time employment in Maine before the student decides to apply for degree status at the University will be considered in-state for tuition purposes.

A student who is dependent on his/her parent(s) and/or legally appointed guardian (or to whom custody has been granted by court order) is considered to have a domicile with the parent(s) for tuition purposes.

In-state tuition is not available to anyone who holds a non-immigrant U.S. visa. If an individual is not a domiciliary of the United States, they cannot be a domiciliary of the state of Maine.

A student who attended an out-of-state educational institution at in-state tuition rates in the immediately preceding semester, shall be presumed to be in Maine for educational purposes and not to establish a domicile. Again, the burden will be on the individual to prove that he or she has established a Maine domicile for other than educational purposes.

To change tuition status, the following procedures are to be followed:
A. A "Request of Change in Tuition Status" must be filed with the executive director for Financial Resources or designee on or before the campus's first day of classes for the summer session, fall or spring semester for which residency is requested. All applications shall be prospective.
B. If the executive director for Financial Resources' written decision, to be issued within 30 days of the first day of classes, is considered incorrect by the student, the student may appeal that decision in writing, within 30 days, to the chief financial officer of the campus.
In the event that the executive director for Financial Resources, or other designated official, possesses facts or information indicating a student's change of status from in-state to out-of-state, the student shall be informed in writing of the change in status and will be given an opportunity to present facts in opposition to the change. The student may appeal the decision of the executive director for Financial Resources or other designated official as set forth in the preceding paragraph.

Applications for "A Request for Change in Tuition Status" are available at the Student Billing Office, 110 Corthell Hall in Gorham, or the Business Office, 118 Payson Smith in Portland, or at www.usm.maine.edu/buso. Completed applications should be returned to the Portland Business Office.

## Student Financial Aid

At some point in the college planning process, the consideration of cost enters into the decision to pursue a college education. A college education is one of the most important investments a student will make. To provide students with an affordable education, the University of Southern Maine Office of Student Financial Aid offers a variety of programs to assist students and families in paying their educational expenses. During the most recent academic year, nearly $\$ 67$ million in financial aid was available to USM students.

The Office of Student Financial Aid administers, coordinates, and recommends programs of financial aid to enable students who lack adequate financial resources to attend USM. Offices are located in Gorham in Corthell Hall, in Payson Smith Hall in Portland, and at Lewiston-Auburn College. For more detailed information about the application process, the funds available and the priority filing dates and deadlines, refer to the Student Financial Aid section of this catalog, call (207) 780-5800, or visit us on the Web at www.usm.maine.edu/fin.

To receive financial assistance, a student must be admitted into a degree program at the University and, in most instances, must be enrolled for at least six credit hours for a semester. Aid can be granted only to U.S. citizens and eligible non-citizens.

The deciding factor in the establishment of a student's eligibility for financial aid is that of documented financial "need." That is, when an applicant has been determined to have insufficient family resources to meet the costs of attending the University of Southern Maine, she or he is eligible for assistance. Since the federal government provides most of the funds the University allocates to its students, family resources are assessed in accordance with a formula required by the U.S. Department of Education.

It is important to remember that financial aid is intended to supplement a student's resources. A basic principle of financial aid programs is that the student and his/her family are expected to contribute, when able, from income and assets to meet college costs.

No student should fail to apply for admission because she or he cannot afford a college education. The Office of Student Financial Aid administers a strong and versatile program. When a student's financial resources are insufficient to meet educational expenses, grants, loans, or employment can usually be made available. If funds are not available from the University, the Office of Student Financial Aid helps students explore other potential sources of aid.

Satisfactory Academic Progress for Continued Financial Aid Eligibility Every school participating in the federal student financial aid programs must monitor its not receive federal funding. Federal regulations mandate that the school's satisfactory progress policy must include both a qualitative measure (such as the use of cumulative grade point average) and a quantitative measure (such as a maximum time frame for completion) of the student's progress. While the qualitative measure is determined and monitored by the academic standards of the institution, the quantitative measure administered by the Financial Aid office is used to determine the number of credit hours completed when compared to those attempted. To quantify academic progress, the school is required to set a maximum time frame in which a student is expected to finish a program. For an undergraduate program, the maximum time frame may not exceed $150 \%$ of the published length of the program as measured in academic semesters.

To ensure that the student is making sufficient progress throughout the course of study, the school must divide the program into equal evaluation periods called increments. Once the school defines the length of each increment, the school must compare the number of hours the student attempted with the number of hours the student successfully completed. This calculation enables the school to determine whether the student is progressing at a rate that will allow him or her to finish the program within the maximum time frame. As is the case in USM's progress policy, a school is permitted to apply a more lenient completion standard in the student's first aca-

## Application <br> Procedures

How Financial Aid is Allocated

demic year and then gradually increases the completion standard for each subsequent academic semester. USM's satisfactory progress policy explains how withdrawals, grades of incomplete, courses that are repeated, noncredit remedial coursework, and other attempted coursework which is not completed affect the satisfactory progress determination. Procedures have been established that enable a student to appeal a determination that finds him or her not to be making satisfactory progress. The quantitative and qualitative standards used to judge satisfactory progress must be cumulative and include all periods of the student's enrollment. Even periods in which the student did not receive financial aid funds must be counted. If the student does not meet the school's standards for satisfactory academic progress, he or she is not allowed to receive further funds from federal student aid programs. For specific details regarding satisfactory academic progress for financial aid, please refer to the USM financial aid Web site at www.usm.maine.edu/fin.

To apply for financial assistance from the University of Southern Maine, you should file your Free Application for Federal Student Aid (FAFSA) or your Renewal FAFSA on the Web at www.fafsa.ed.gov.

Students are encouraged to apply for assistance as early as possible. To ensure a fair distribution of funds, a priority filing date is established. To meet USM's deadline, applicants must ensure that their FAFSA data is received at the institution by March 1. Students should submit the FAFSA to the federal student aid programs by February 15 to meet the USM March 1 deadline.

Applications are accepted after the priority filing dates, although the type and amount of aid offered may be reduced subject to funding limitations. Applicants who file after the priority filing date will probably receive delayed notification and may not have the funds in time to pay semester bills.

You must be registered with the Selective Service if you are a male, at least 18 years old, and born after December 31, 1959. If you believe you are not required to be registered, please call the Selective Service Office for information regarding exemption.

A student must not owe a refund on a federal grant or be in default on a federal educational loan. Students who are in default or owe a repayment are not eligible for federal financial aid.

Additional financial records required to verify information reported on the FAFSA may be requested under separate cover.

The University begins reviewing student aid applications in early spring. Once a student is accepted by the Office of Undergraduate Admission, the FAFSA is received, and the University is told how much federal aid it will have for students, a notice of eligibility is sent.

The amount a student receives is determined by subtracting the student's resources from a budget computed by the Office of Student Financial Aid. This budget is based on typical living and educational costs for a student in a given situation. It may be adjusted if unusual non-discretionary expenses exist.

Students are offered aid in a package which may consist of grant and/or loan and/or work-study. Undergraduate students with prior bachelor's degrees are not eligible to receive grants.

Even after a student is allocated aid, the amount may be adjusted if the student's financial situation changes. Students and parents must promptly report any of the following to the Student Financial Aid office: a change in income; a change in marital status; a change in the number of dependents; a change in residence; a change in the number of credit hours attempted; and the receipt of financial aid from sources other than the University. If a student receives outside scholarship funds, the amount of aid from the University may have to be reduced.

## Types of Aid Available

Federal Pell Grants This is a federally funded program to help needy students. In 2009-2010 grants will vary between $\$ 304$ and $\$ 5350$ per academic year.

Federal Supplemental Educational Opportunity Grants This is a federally funded program to help needy students. Grants range from $\$ 100$ to $\$ 4,000$.

University and Miscellaneous Scholarships These are funded by the University and private donors. Awards have ranged from $\$ 100$ to $\$ 4,000$ and are given on the basis of financial need.

Federal Work Study Employment This is a program funded by the University and the federal government. Eligible students may earn between $\$ 1,500$ and $\$ 3,500$ per year. A student's financial need governs the amount that can be earned.

Federal Perkins Loans Funded by the federal government, the University, and former borrowers repaying loans, this program lends money to needy students. No repayment is required until after the student ceases his/her education or drops to below half-time enrollment. Once repayment begins, the student is charged 5\% simple interest on the amount borrowed. While the monthly repayment amount varies with the amount borrowed, a minimum of $\$ 40$ must be repaid each month. Loans vary between $\$ 400$ and $\$ 2,500$ annually.

Federal Nursing Student Loans Funded by the federal government, the University, and loans repaid by former borrowers, money is lent to needy nursing students. Repayment terms are similar to those of the Perkins Loan. Loans range from $\$ 400$ to $\$ 4,000$.

Federal Subsidized Stafford Loan This program, sponsored by the federal and state governments, allows students to secure low-cost loans. Eligibility for subsidized Stafford Loans is based on demonstrated financial need and grade level.

Federal Unsubsidized Stafford Loans This program provides access to borrowing for both students who do and do not qualify for need-based assistance. The student is responsible for the interest as it accrues.

Federal Parent Loans These programs, sponsored by the federal and state governments, allow parents to secure relatively low-cost loans. Parent Loan (Plus) application request forms are available from the Student Financial Aid Office or can be printed from www.usm.maine.edu/fin, under the section entitled PLUS Loans.

Alternative Loans These alternative, credit-based loan programs provide longterm financing options for qualified families. Additional information about these programs are available at the following Web site: www.usm.maine.edu/fin or in the Student Financial Aid Office.

North American Indian Programs Tuition, mandatory fees, and on-campus room and/or board will be waived for qualified and eligible North American Indians residing in Maine. Eligibility is extended to 1) the person whose name is included on the current census of either the Passamaquoddy or Penobscot Tribes; and 2) the person who has resided in Maine for at least one year and whose name, or the name of at least one of their grandparents, was included on the census of a North American Tribe OR held a band number of the Maliseet or Micmac Tribes with direct blood lineage. For additional information, contact the Wabanaki Center at (207) 581-1417. You may also visit their Web site at www.naps.umaine.edu/eligibility.html.

For more information about financial aid programs, contact the Office of Student Financial Aid, University of Southern Maine, Corthell Hall, College Avenue, Gorham, Maine 04038 or telephone (207) 780-5800. You may also visit our Web site at www.usm.maine.edu/fin.

Offers of financial aid are conditional upon receipt of funds from all funding sources. The Office of Student Financial Aid reserves the right to revise offers of financial aid at any time during the year based on availability of funds and/or changes in regulation and/or procedures mandated by University, state, or federal authorities.

## Academic Policies

University Degree Requirements

Course Numbering

To be eligible for a baccalaureate degree from the University, a student must meet the following:
I. college readiness requirements
II. Core curriculum requirements
III. school or college major requirements

The Core curriculum requirements apply to all students who entered the University beginning September 1982 and thereafter. Transfer students should refer to the section, "Transfer Students and the Core Curriculum."

## College Readiness Requirements

The University has defined measures of college readiness in writing and math. All students must demonstrate college readiness in these subjects. Some courses at other institutions may be used to meet the college readiness requirements in math or writing; please consult the Transfer Affairs office for specifics. These requirements can also be met through CLEP scores; consult the office of Prior Learning Assessment for an evaluation.

In math, students can demonstrate college readiness by any ONE of the following measures:

1. an SAT Quantitative score of 550 or above.
2. an ACT Math score of 22 or above.
3. a passing score on the mathematics placement examination.
4. a C minus or better in MAT 101B (4 credits)

In writing, students can demonstrate college readiness by any ONE of the following measures:

1. an SAT Writing score of 550 or above.
2. an ACT English score of 22 or above.

Students whose scores fall below these measures, or who do not have test scores, must fulfill their college writing requirement by taking ENG 104C, Enriched College Writing.

Students whose first language is not English can demonstrate college readiness by any ONE of the following measures:

1. an SAT Writing score of 550 or above.
2. a TOEFL score of 79 or above.

Non-native speakers of English whose writing falls below these measures must complete ESL 104A Reading, Writing \& Vocabulary, with a C or better (and any prerequisite courses based on the ESOL Program's placement test). To complete their Core writing requirement, these students must then move on to ESL 100C College Writing.

For information regarding the Core curriculum, including a list of courses approved to satisfy the Core, please refer to the section on the Core curriculum.
001-049 No Degree Credit
050-099 Associate Degree Program Credit Only
100-199 Introductory Level
200-399 Intermediate Level
400-499 Senior Level, others by permission
500-599 Undergraduate and Graduate Students
600-799 Graduate and Professional Students Only
Note:

1. All courses carrying number 050-099 carry credit and quality points only toward an associate degree.
2. All courses with number 100 or greater carry credit and quality points toward both an associate degree and a baccalaureate degree.
3. Matriculated baccalaureate students should not register for courses with numbers less than 100 unless meeting minimum proficiency requirements.
4. Associate degree students who wish to change their major to a baccalaureate program should complete a Change of Major form. Some programs require a minimum grade point average (GPA) for a major change into a baccalaureate
program. Credit and quality points for courses numbered 050-099 will be deducted from the appropriate academic totals when a student changes from an associate degree program to a baccalaureate program.

Registrar

Registration

Enrollment Status

Grading System

The Office of the Registrar serves as the legal custodian of University academic records and is responsible for the appropriate recording, production, and disbursement of those records. The Office is also responsible for recording such critical functions as academic honors, sanctions, and dismissals. The Office of the Registrar is located in Gorham in Corthell Hall (780-5230). Registration services are available in the Student Billing Office in Portland at Payson Smith Hall (780-5233) and at Lewiston-Auburn College (753-6500).

The registration process is conducted by the Registrar, Business Office, and many academic departments. It includes selection of courses, completion of proper forms, and payment of University charges. Newly admitted students are notified by Advising Services of their schedule for orientation, advising, and registration. Advising Services coordinates the new student academic advising process and initiates the registration procedure by approving course schedules prior to processing by the Registrar and Business Office.

Continuing degree students may advance register in priority order, based on credits earned and class level. Advance registration is conducted near the end of each semester for the following semester. Non-matriculated (special) students may register only during the open registration period. Degree students must obtain advisor approval prior to registration. No student may register for more than 18 credits in one semester without the permission of his or her advisor and the dean.

Students are considered to be full-time if they are enrolled for 12 or more credits. Half-time enrollment requires an active enrollment of at least 6 credits.

Grades at the University are given in terms of letters, with the option of a plus or minus designation, representing levels of achievement. The basis for determining a grade is the relative extent to which the student has achieved the objectives of the course. The student's work in each course is graded as follows:

A High honors ( $\mathrm{A}+$ is not a valid grade.)
B Honors
C Satisfactory, successful meeting of the course objectives
D Low-level work, below the average required for graduation for an undergraduate, and a failing grade for a graduate student. In addition, individual departments may limit the number of D grades accepted, as stated in the departmental sections of this catalog. The paragraphs on Minimum Grade and Academic Suspension and Repeated Courses should also be noted.
F Failure to meet the course objectives
$\mathrm{P} \quad$ Pass: pass with a grade of C - or better in a pass-fail course
$\mathrm{H} \quad$ Honors performance in a pass/fail course
LP Low Pass; pass with a grade of D-, D, or D+ in a pass/fail course
I Incomplete; a temporary grade given when the student, because of extraordinary circumstances, has failed to complete the course requirements. Incomplete grades must be resolved by the end of each subsequent semester; the Registrar shall notify faculty members involved of students who have carried unresolved incompletes on their transcript for one semester. If the incomplete is not resolved by the instructor, an I grade will be converted to an F .
INC Permanent Incomplete. When a temporary incomplete (I) grade is not resolved to a normal letter grade, a permanent incomplete may be assigned in extraordinary circumstances as determined by the instructor and the dean. In unusual circumstances wherein the faculty member is no longer available, the dean may exercise this function. The grade of INC has no impact on GPA; no credits awarded.
L Stopped attending. The grade of L may be assigned to students who stopped attending a course without officially dropping the course. The grade of L will be computed as an F for purposes of the student's grade point average.

MG Missing Grade: Occasionally, faculty may assign students invalid grades for a course, or may fail to submit a grade for a particular student in a course. In these cases, the Registrar's Office will note this act by designating a missing grade, or MG, instead of a grade for the course. Missing Grades must be resolved by the end of each semester. The Registrar shall notify faculty members involved, and their departmental chairperson, of students who have carried unresolved MGs on their transcript for one semester. If the missing grade is not resolved by the instructor, the MG will be converted to an F .
W Withdrawal after the end of the add/drop period through $60 \%$ of a course. If a student has not officially withdrawn before $60 \%$ of the course has been completed, an F will be assigned. The W notation may be obtained after completion of $60 \%$ of the course under unusual circumstances if so determined by the instructor and the dean. A threat of failure is not considered to be an unusual circumstance. The grade of W has no impact on GPA.
DG Satisfactory progress after one semester of a two-semester course; grade and credits to be given upon completion of second semester.
AU Student attended courses on a noncredit basis.

## Grade Point Averages

## Dean's List

## Minimum Grade and Academic Suspension

The academic standing of each student is computed by the Registrar at the end of every semester. The following table represents the rating scale:

A $\quad 4.00$ grade points per credit hour
A- 3.67 grade points per credit hour
B+ 3.33 grade points per credit hour
B $\quad 3.00$ grade points per credit hour
B- 2.67 grade points per credit hour
C +2.33 grade points per credit hour
C 2.00 grade points per credit hour
C- 1.67 grade points per credit hour
D+ 1.33 grade points per credit hour
D $\quad 1.00$ grade points per credit hour
D- 0.67 grade points per credit hour
F $\quad 0.00$ grade points per credit hour
To compute the grade point average for a semester, first multiply the grade points earned in each course by the number of credit hours assigned to that course. The resulting product is the number of quality points for that course. Then divide the total number of quality points earned during the semester by the total number of credits carried in that semester. The result is carried out to two decimal places to produce the grade point average for that semester.

To compute the cumulative grade point average, divide the total quality points earned by the total credits attempted in all semesters.

At the end of each semester, full-time, undergraduate degree students (12 credit hours or more, with a minimum of 12 letter graded credits (A-F), and excluding developmental credits (course numbers less than 100)), with grade point average of 3.4 or above will be placed on the Dean's List. Students with incomplete or missing grades (I or MG) at the point when the Dean's List is produced (35 days after the end of a fall or spring semester) will not be eligible for the Dean's List. Those students on the Dean's List whose names appear in the public directory of the University will have their names released to the news media. Students who attend both the fall and the spring semesters as part-time degree students and who meet the above full-time Dean's List criteria when the fall and spring semesters are combined are eligible for the Dean's list at the end of the spring semester. A notation will be placed on the transcript of those who are placed on the Dean's List.

Minimum cumulative grade point averages for all undergraduate programs at the University are as follows:

| Associate Degree Students | For Good | For Probationary |
| :---: | :---: | :---: |
| $0-15$ credit hours | Standing | Standing |
| $16-30$ credit hours | 1.60 | 1.35 |
| $31-45$ credit hours | 1.80 | 1.60 |
|  | 2.00 | 1.80 |


| $0-30$ credit hours | 1.70 | 1.50 |
| :--- | :--- | :--- |
| $31-60$ credit hours | 1.80 | 1.60 |
| $61-90$ credit hours | 1.90 | 1.70 |
| 91 or more credit hours | 2.00 | 1.80 |

Students may be suspended from the University by the dean of the appropriate academic unit. Students who have two consecutive semesters of probationary standing may be suspended at the discretion of the dean. Ordinarily, a student may be suspended by the dean in consultation with the department chair or the student's advisor if the student's semester average falls below 1.0. While under suspension, students may not take coursework, either at the University of Southern Maine or at other institutions, to be applied for credit at the University of Southern Maine without permission of the dean of the suspending academic unit. Academic suspensions are imposed for a length of one academic semester. Other standards vary from college to college and are outlined in the letter of suspension directed to the student from the appropriate dean. For details concerning disciplinary suspension and dismissal, consult the Student Conduct Code.

Students with majors or minors in English, history, political science, or psychology in the baccalaureate program of the College of Arts and Sciences must achieve at least six credits with grades of B or better in their major or minor requirements. No grades of D will count toward fulfillment of the major or minor requirements in these programs.

Technology education majors must maintain a 2.5 cumulative index prior to and throughout the professional sequence, i.e., TCE 380, TCE 381, and EDU 324. No more than one D grade will be accepted in the technical and professional courses required of industrial technology majors.

Matriculated degree candidates are eligible for re-enrollment at the University in accordance with the stipulations outlined in their letter of suspension. Unless noted otherwise in the letter of suspension, the student has the right to re-enroll after one semester.

A student who is a degree candidate is expected to complete and pass the courses for which he or she is registered during a given semester. A student who fails or withdraws from more than two courses during a semester may be placed on academic probation or suspended by the dean of the college, school, or division.

Students placed on academic suspension for a second time are dismissed from the University. In rare cases, students may be readmitted if they can provide evidence of significant academic improvement to the dean of their school or college. Such evidence would normally include high quality academic coursework at another institution. For details of disciplinary dismissal, consult the Student Conduct Code.

Students who are pursuing degrees leading to application for professional licensure or certification, and/or who will be participating in clinical placements, internships, or practica through their USM program should be aware that their host facility may require a criminal background check, finger printing, or drug screening. In such situations, each student is responsible for obtaining and paying for the background check or other screening process and for delivering required documentation to the facility. Although the University will make reasonable efforts to place admitted students in field experiences and internships, it will be up to the host facility to determine whether a student will be allowed to work at that facility. Students should further be aware that a criminal record may jeopardize licensure by the state certification body. Students may consult the certification body corresponding to their intended occupation for more details. Successful completion of a program of study at USM does not guarantee licensure, certification, or employment in the relevant occupation.

Non-matriculated students may register on a space-available basis for courses providing the student meets the prerequisites for the course. Non-matriculated students, while not required to apply for admission, should be aware that, in addition to meeting Departmental/school/college/University requirements, a minimum of 30 USM credits must be taken as a matriculated USM degree student in order to receive a baccalaureate degree.

## Class Membership

## Add/Drop

## Pass-Fail Option

## Repeated Courses

## Academic Forgiveness Policy

A minimum of 120 credit hours is required for graduation in most baccalaureatelevel programs and 60 credit hours in associate-level programs. To progress through the University in the traditional four years (two years for associate degree students), full-time students should earn at least 30 credits each year, carrying at least 15 credit hours each semester. Permission must be obtained from the advisor and the appropriate dean to carry more than 18 credit hours.

For standing as a sophomore, a student shall have completed at least 20 percent of the hours required for graduation, for junior standing 45 percent, and for senior standing 70 percent.

The required number of credit hours by classes are:

|  | Sophomore | Junior | Senior |
| :--- | :---: | :---: | :---: |
| Four-year programs | 24 | 54 | 84 |
| Two-year programs | 24 |  |  |

Students may add courses during the first week of class with the signature of the instructor. Dropping a course does not require instructor signature. Drops processed during the first two weeks do not have financial penalty. A student dropping a course after the add/drop period through $60 \%$ of classes will receive the grade notation of W. A student dropping a course after the $60 \%$ period will receive an F . The W notation may be assigned after $60 \%$ of the course has been completed under unusual circumstances if so determined by the instructor and the dean. All students who register for a course and neither complete the course objectives nor officially withdraw according to any one of the procedures described above will be graded $F$ in that course and must assume all financial obligations associated with the course.

Students who find that their names are not on the instructor's official list should check immediately with the Registrar's Office to make necessary corrections in the registration records.

The purpose of the pass-fail grade option is to encourage a student to broaden his or her educational experience with a reduced risk of lowering the overall grade point average. The instructor will assign pass grades of H (honors performance) or P (pass) when a letter grade of C - or better would have been assigned, a grade of LP (low pass) when the letter grade would have been $\mathrm{D}+$, D , or D -. Note that F and L grades will be included in the grade point average calculation.

Unless otherwise specifically stated in this catalog, courses taken to satisfy Core curriculum, University Honors Program, major, or minor requirements may not be taken pass-fail. Undergraduate degree candidates may register for a maximum of six hours of pass-fail credits in any one semester, up to a maximum of 18 hours of the total credit hours required for graduation.

Students may independently exercise the pass-fail option up to the end of the add/drop period (currently two weeks in the fall or spring semester). Requests after this period must be made through the Dean's office of the school/college offering the course; in general, requests for reversal of the pass-fail option will only be granted if a grade is necessary to meet the student's particular degree requirements. Prior to exercising this option, students are encouraged to contact the instructor of the course.

When a student repeats a course and earns a grade of A, B, C, D, F, H, P, or LP, the initial grade remains on the transcript but only the later grade is used in computing the grade point average or for credit. No course in which one of the above grades has been earned may be repeated more than once without written permission of the dean or director of the appropriate school, college, or division. This policy does not apply to courses specifically designed to be repeated. Students should complete a Course Condition form each time they repeat a course. Courses intended to repeat University of Southern Maine courses may be taken at other institutions; such courses will be accepted in accordance with the University's transfer policy. The transferred course accepted as a USM equivalent will receive USM credit but will not be calculated in the GPA; the original USM course that was repeated will remain on the student's transcript but will be removed from both the credit and GPA calculations.

Occasionally, a student's academic performance early in his or her career may not be reflective of academic performance at a later time. Academic forgiveness permits a student to remove credits and grades from one semester of attendance. All credits and grades in the forgiven semester are removed regardless of the grade received in

Substitution of Program<br>and Core Curriculum<br>Requirements for Students<br>with Disabilities

## Auditing Courses

## Independent Study

## Variable Credit Courses

Permanent Academic Record

Academic Record Changes

any given course. The forgiven semester's academic detail (including grades and attempted credits) will continue to be displayed on the transcript, but these grades and credits will not be included in the student's grade point average or total credits earned. Once academic forgiveness is granted, it is not reversible.

The following criteria must be met before academic forgiveness will be granted: 1) The semester to be forgiven must have been completed at least three years prior to the declaration and any earned credits from that semester must not have been applied to a previously awarded degree; 2) the student has taken at least 15 credits at USM for which a grade point average of at least 2.5 is earned subsequent to the declared semester; 3) the student is a matriculated, undergraduate degree candidate when the forgiven semester is declared; 4) forgiveness can only be provided for credits and grades earned at USM; and 5) academic forgiveness can be declared only once and for one complete semester. No tuition or fee refunds shall be made.

If a documented disability precludes successful completion of a particular course required by a degree program or successful completion of Core curriculum requirements, a request for substitution of either the degree program, or most Core curriculum requirements can be initiated by a student. A student may not request that Core area A (writing proficiency), or Core area C (writing competence), be modified. Written communication is considered to be an integral part of the classroom experience and substitution of this requirement would substantially change the nature of the educational preparation and experience at USM. In all requests, the student has the responsibility to provide information supporting the need for a degree program or Core curriculum substitution based upon disability. A copy of the complete policy and procedures statement may be obtained from the Office of Academic Support for Students with Disabilities, 242 Luther Bonney Hall, Portland campus, 780-4706; TTY 780-5646.

Students who register to audit a course receive no credit for the course but will have an audit grade (AU) recorded on their transcripts. Audit courses must be declared by the end of the add/drop period. Questions about this policy should be directed to the Registrar's Office.

Independent study is intended to encourage supervised undergraduate research. With permission of the instructor, junior and senior students may elect independent study related to their major or minor. Normally, no more than four credits may be earned in a semester. No more than 12 credits of completed independent study shall be counted towards an undergraduate degree. The student submits an independent study application to the department chair which includes a detailed description of his or her proposed program of study. The independent study form must be filed with the Registrar before registration will be allowed.

A student should complete the necessary form during registration at the Registrar's Office. Variable credits may be obtained only for those courses so designated.

The permanent academic record, including transfer credit evaluation, is maintained by the Office of the Registrar for all students of the University. While grades may be reported unofficially to the student, academic dean, and advisor, the only true and valid documentation of academic work and student status is an official transcript of the academic record, stamped with the Registrar's signature and embossed with the seal of the University. The transcript is available only with the signature of the student and will be released to that student or a designee provided there are no outstanding charges against his or her account with the Business Office. Other types of transcripts are: Unofficial-Issued Directly to Student, available after grades are posted for that semester; Placement Transcript, provided for the student's placement folder.

Considerable care is taken to ensure that course registration and grades entered on a student's permanent record are accurate. Any student who suspects an error has been made should contact the Registrar's Office immediately. Records are assumed to be correct if a student does not report to the Registrar's Office within one year of the completion of the course. At that time, the record becomes permanent and cannot be changed.

Coursework at Other Institutions

## Graduation

Requirements

Residence<br>Requirement

Graduation Honors Policy

Post-Baccalaureate Study for Second Degree

Matriculated students at the University are expected to secure written approval from the appropriate dean prior to taking coursework at another institution. Credit approved for courses taken at other institutions will count towards the total degree hours required but will not be computed in the student's cumulative grade point average. For further information, contact the Transfer Affairs Office.

In addition to the minimum requirements of 120 credits for a baccalaureate degree and 60 credits for an associate's degree, a candidate must (a) receive passing grades in courses required by the University, the school or college, and the major department; (b) accumulate the number of credit hours required by the school or college in which the student is registered; (c) achieve an accumulative average of not less than 2.00; (d) meet the requirements of the major department; (e) complete an Application for Degree form with the Office of the Registrar at the beginning of the semester of graduation. Responsibility for successfully completing the requirements of the program resides with the student.

For all baccalaureate degrees at the University a minimum of 30 credits hours, including at least 9 hours in the major field, must be completed while matriculated in the school or college from which the degree is sought ( 15 credit hours for associate's degree programs). A student may earn no more than six of these 30 credit hours at another campus of the University of Maine System. In addition, the final 30 credits of a student's degree program must normally be completed at USM. Under extraordinary circumstances and with supporting documentation, students may request a waiver of the requirement to complete the final 30 credits at USM from the dean of the school or college from which the degree is sought. Waivers are not automatically granted, and shall not be granted until at least 30 credits hours, including at least 9 hours in the major field, have been completed while matriculated in the school or college from which the degree is sought ( 15 credit hours for associate's degree programs).

Graduation with distinction is based on the student's GPA at the University of Southern Maine. Students must complete at least 60 credit hours (with a minimum of 45 credit hours graded A through F) at USM in order to qualify. Graduation with distinction categories are (a) at least 3.80 for summa cum laude; (b) at least 3.60 and less than 3.80 for magna cum laude; and (c) at least 3.40 and less than 3.60 for cum laude.

## Honors Cords at Commencement

In the event a student meets the graduation with distinction GPA requirement at USM, but fails to meet the 60 credit hour requirement, distinction will be determined by a calculation of the student's GPA for the last 60 credit hours wherever they were completed.

For purposes of wearing honor cords at Commencement: (gold cords, summa cum laude; blue cords, magna cum laude; white cords, cum laude) a student must meet the GPA requirements listed above, and be registered for enough credits to meet the 60 credit hours at USM requirement. Spring semester grades will not be calculated in the GPA for determining GPA for honors cords at Commencement.

A second bachelor's degree may not be granted a student until he or she has completed an additional year of college work, as represented by a minimum of 30 semester hours beyond the requirements for the first degree. Such work must be completed in accordance with all other University regulations.

It is the responsibility of the Office of the Dean of the school or college in which the second degree is sought to provide the approval for undertaking the second degree and certifying the completion of all requirements prior to receipt of the second degree.

Students who have already earned one baccalaureate degree and are undertaking work for a second baccalaureate degree are not required to satisfy Core curriculum requirements.

To withdraw from the University, a student must notify the Registrar's Office in writing. Official withdrawal forms are available from the Registrar's Office and the Enrollment Services Center and require a signature. The date of withdrawal will nor-

Matriculation Status<br>(Leave of Absence)

## Catalog Effective for Graduation Requirements

mally be the postmark date of the withdrawal letter or the date the official form is signed.

If a student withdraws from the University during the add/drop period of the semester, there will be no courses or grades recorded. Students withdrawing after the add/drop period through $60 \%$ of the semester will receive a W grade for each course in which the student was enrolled. Students withdrawing after $60 \%$ of the semester will receive regular grade designations as determined by the instructors, normally an F grade. Under unusual circumstances, grades of W can be assigned after $60 \%$ of the semester if approved by both the instructor and the dean.

Students in good standing who have withdrawn from the University and who wish to return at a later date should follow the instructions given under Matriculation Status (Leave of Absence).

Information concerning financial obligations to the University relative to the withdrawal policy will be found in the Financial Information section of this catalog.

Degree candidates maintain their matriculation status for ten calendar years from their first semester of attendance as matriculated students. If, for any reason other than dismissal from the University, a student does not register for any length of time during that ten-year period and then resumes registration, no readmission decision will be made. In such cases, the student should register for classes in accordance with current registration procedures. If, however, a student wishes to resume studies as a degree candidate after the ten-year period has elapsed and has not taken classes for two years, he or she needs to apply for readmission. Readmission applicants should contact the Office of Admission for the proper forms.

Freshmen and new transfer students (including transfers from other campuses of the University of Maine System) must satisfy the graduation requirements set out in the catalog in effect for the first semester of their attendance as a matriculated student. Students whose matriculation at the University has expired (normally ten years) forfeit the right to pursue a degree according to the provisions of the original catalog and are bound instead by the catalog in effect for the first semester of attendance as a readmitted student.

At the student's choice, a later catalog may be selected for graduation requirements; but a student may not select an earlier catalog. In some cases, academic units have specific time limits for completion of graduation requirements. If so, that time limit will be noted in the appropriate school/college/division section of this catalog. Students must meet the requirements of a catalog issued within ten years of graduation.

The University is not bound by its previous catalog and maintains the right to control its course offerings. Where program/degree requirement changes have occurred that have resulted in changes to course offerings and/or availability, reasonable substitutions will be made to facilitate degree/program completion.

Permission to change from one major to another is granted by the dean and head of the department in which the student expects to major. A form for the change may be obtained from the Registrar's Office. A change-of-major form must be filed with the Registrar's Office. Requests from undeclared students, and admitted-with-conditions students must be processed by Advising Services.

Information on the procedure for change of college or school may be obtained from the Registrar's Office or Advising Services.

When a student completes the basic requirement for graduation from one of the schools or colleges and the course requirements for two majors, the student should notify the Registrar, who will record the double major on the student's transcript.

The attendance policy is left to the discretion of the faculty member. Each semester, it is the responsibility of the faculty member to inform the students in each class of the attendance requirements for that class.

Everyone associated with the University of Southern Maine is expected to adhere to the principles of academic integrity central to the academic function of the University. Any breach of academic integrity represents a serious offense. Each student has a responsibility to know the standards of conduct and expectations of academic integrity that apply to academic tasks. Violations of student academic integri-

Examination Policy

Absence from a Final Examination

Confidentiality Policy

## Clinical Course <br> Requirements

## Student Complaints

ty include any actions that attempt to promote or enhance the academic standing of any student by dishonest means. Cheating on an examination, stealing the words or ideas of another (i.e., plagiarism), making statements known to be false or misleading, falsifying the results of one's research, improperly using library materials or computer files, or altering or forging academic records are examples of violations of this policy which are contrary to the academic purposes for which the University exists. Acts that violate academic integrity disrupt the educational process and are not acceptable.

Evidence of a violation of the academic integrity policy will normally result in disciplinary action. A copy of the complete policy may be obtained from the Office of Community Standards (780-5242).

The examination policy states that it is the responsibility of the faculty member to inform the students in each class of the examination requirements for that class. Usually, two to four preliminary examinations are administered in each course and count heavily toward the final grade. Giving a final exam is not mandatory; however, in classes where they are given, the examinations must be scheduled within the specific final exam period. Take-home exams are also due within the final exam period. By action of the Faculty Senate, no test or examination may be scheduled during the last week of classes.

A student who misses a final examination should immediately contact the instructor to apply for a special examination. Students who miss a final examination and are failing the course at the time will usually be given the grade of F instead of being marked I for the semester grade.

The University complies totally with the Family Rights and Privacy Act of 1974 (the Buckley Amendment). For the complete University Confidentiality Policy, consult the Office of the Registrar on either campus.

Many divisions of study at the University require as a condition of graduation the completion of one or more training programs or courses in an outside clinical or professional setting, such as a hospital, clinic, professional office, or public classroom. These outside institutions sometimes impose additional requirements upon students as conditions of participation in their programs. Such requirements might include evidence of a recent medical examination, evidence of health, auto or other insurance, a written agreement to accept and abide by the rules and regulations of that institution, or the execution of an indemnity agreement or release. The University assumes there will be assent to and compliance with such requirements, rules, and regulations by each student upon his or her enrollment in those courses involving outside clinical study.

To provide undergraduate students with assistance in resolving disagreements with University employees, the University has designated the Office of the Dean of Student Life (ODSL) to respond to student inquiries in these matters. The mission of ODSL in this regard is to provide impartial guidance to students in identifying whether the nature of the disagreement concerns an academic appeal or an administrative appeal, and the appropriate University policy or procedure that can be used to resolve it.

The academic appeals and administrative appeals policies described below are not applicable to student complaints about unlawful discrimination or sexual harassment. An ODSL representative can advise the student about other University policies and procedures used to address student complaints about unlawful discrimination and sexual harassment. All other serious student complaints should be referred to the University employee concerned or to that person's immediate supervisor or department head, who may then request a meeting between the parties.

## Student Academic Appeals Policy

Public institutions of higher education function for the common good, not to further the interest of either the individual faculty member or the institution as a whole. The common good depends upon the free search for truth and its free expression. Academic freedom is essential for protection of the rights of the teacher in teaching, and the rights of the student to freedom in learning. Teachers must be accorded free-
dom of speech under the First Amendment of the U.S. Constitution, and are entitled to freedom in the classroom in discussing their subjects. Controversy lies at the heart of free academic inquiry, and provocative teaching techniques are often effective. Rights carry corresponding duties; both faculty and students should exercise this freedom in a responsible manner.

A fundamental premise of academic freedom is that decisions concerning the quality of faculty scholarship, teaching, and service are best made by reference to standards of the academic profession, as interpreted and applied by the community of scholars who are qualified by academic expertise and professional training to establish them. Possible violations of professional standards are most appropriately remedied through supervision of faculty peers. This occurs during regular performance appraisals of faculty, in which adequate consideration of student teaching evaluations is required.

Academic appeals generally involve such matters as appeal of grades granted by individual members of the faculty, or instances of perceived unfair treatment which a student believes may have negatively impacted his or her grade. To be considered, an appeal of a grade must be initiated within 30 days after a final grade is posted.

In order to guarantee fair and equitable consideration of student academic appeals, a student must first reduce an appeal to writing and discuss it with the faculty member whose actions gave rise to the appeal, in a good faith attempt to resolve any misunderstanding. If, after such discussion, the student is not satisfied with the result, he or she may appeal to the department chair.

After receiving an academic appeal of a grade, the department chair shall interview the student, the faculty member, and any witnesses; review the course syllabus and all graded assignments; and ascertain the facts of each case. Because the faculty member who issued the grade is in the best position to evaluate the performance of students enrolled in a course, the academic judgment used to determine the merits of the grade awarded shall not be reviewable. A department chair may request a faculty member reconsider a student's grade. A faculty member may decline to reconsider a student's grade; reconsider a grade and change it; or reconsider a grade and decide not to change it. There must be compelling evidence of unfair treatment for a department chair to change a grade, and this may be done only after a vote supporting that decision by faculty peers within the department.

The department chair shall issue a decision in writing to the student and the faculty member within a reasonable period of time, normally not to exceed 14 days. Either the student or the faculty member may appeal that decision to the dean of the school or college and, if not satisfied with the result, to the vice president for Academic Affairs. Responses to these appeals shall be made in writing to the student and the faculty member within a reasonable period of time, normally not to exceed 14 days.

The individual receiving an academic appeal of a grade shall review the record compiled by the department chair and evaluate the manner in which the appeal was decided. Because faculty peers within the department are in the best position to evaluate teaching within their scholarly expertise, there must be compelling evidence of unfair treatment or violation of the academic appeals procedure for a grade to be changed. The individual receiving an academic appeal shall issue a decision in writing to the student, with copies to the faculty member and the department chair. A decision by the vice president for Academic Affairs shall be final and not subject to further review.

## Student Administrative Appeals Policy

Appeals of administrative decisions generally involve all matters affecting a student while at USM other than matters affecting grades. An administrative decision is any final decision made in an official capacity by any employee or group of employees of the University, including academic matters other than those affecting grades governed by the Student Academic Appeals Policy and violations of the Student Conduct Code. Decisions by a departmental, college or University faculty group making or changing policies are not final administrative decisions. Grading matters are appealed through the Student Academic Appeals Policy described above. To be considered, an administrative appeal must be initiated within 30 days after the decision is made.

In order to guarantee fair and equitable consideration of student administrative appeals, a student must first reduce an appeal to writing and meet and discuss it with
the University employee whose actions gave rise to the appeal, in a good faith attempt to resolve any misunderstanding. If, after such a meeting, the student is not satisfied with the result, he or she may appeal to the head of the academic department or administrative supervisor of the employee.

The head of the academic department or administrative supervisor of the University employee receiving an administrative appeal shall interview the student, the employee, and any witnesses; review relevant written materials; and ascertain the facts of each case. For the individual receiving an administrative appeal to change a decision there must be compelling evidence the University employee exceeded his or her authority or engaged in an arbitrary and capricious abuse of discretion unsupported by the record.

The individual deciding an administrative appeal shall issue a decision in writing to the student and the University employee within a reasonable period of time, normally not to exceed 14 days. Either the student or the University employee may appeal that decision to the head of the appropriate administrative division and, if not satisfied with the result, to the vice president for Academic Affairs or the appropriate vice president for the area involved. A decision by the vice president for Academic Affairs or the appropriate vice president for the area involved shall be final and not subject to further review.

No person shall present to any individual receiving a student academic appeal or student administrative appeal any oral or written communication not on the record relevant to the appeal. The substance of any prohibited communication shall be disregarded by the person receiving an appeal when making any official decision on that appeal.

## Academic Support Services

The University offers students a wide range of academic support services to facilitate and enhance their education. The breadth of these services is designed to accommodate the needs of a diverse student population.

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## Academic Advising

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University Libraries

Following initial advising and registration, students, during their first semester at the University, are assigned a permanent advisor within their academic department. Students are encouraged to maintain close contact with their department advisor once this assignment has been made.

For certain students, however, the assignment of a permanent Department advisor is not appropriate. For such students the following arrangements are made.

Students who have not declared a major are provided academic advising by professional academic advisors in Advising Services. An academic advisor assists the student in the development of educational goals and the selection of an appropriate major. Students should be ready to declare a major before completing 60 credits of coursework at the University.

Students admitted to GO are provided academic advising through this academic success and support program. Academic advisors from Advising Services advise students during the period they complete required coursework. The academic advisor will work with students to develop an individual academic support plan. Upon completion of the requirements of the academic support plan, the student is transitioned from GO and assigned an advisor in his or her major department.

Non-matriculated students are students who are enrolled in courses at the University on a space available basis and who have not applied for admission. They are advised by the Advising Services staff.

The USM Early Study-Aspirations Program offers opportunities for high school students to take college courses to enrich their high school experience. The program is designed to help students supplement, not supplant, the academic program of the high school. Home-schooled students are also accepted. Academic requirements must be met, and permission from high school and parent(s) is expected. Financial assistance is available. For more information visit www.usm.maine.edu/advising/earlystudy or call (207) 780-4040.

Students who have questions regarding general academic policies and procedures, as well as about other aspects of University programs, are encouraged to contact Advising Services in Payson Smith Hall on the Portland campus (780-4040), in Upton Hall on the Gorham campus (780-5652), and in Enrollment Services at Lewiston-Auburn College in Lewiston (753-6500).

The University Libraries provide a full range of services in person and virtually via the Libraries' Web site at library.usm.maine.edu. The Library staff is dedicated to supporting student success and has an active information literacy program to assist students with finding, analyzing, and using information.

In Portland, the Albert Brenner Glickman Family Library is located at the corner of Forest Avenue and Bedford Street, with its new entrance facing University Commons. The Gorham Library and Information Commons is located in Bailey Hall. The Lewiston-Auburn College Library and Commons is located in the center of the Lewiston-Auburn College building. During fall and spring semesters, the Portland and Gorham libraries are open seven days a week for 96 hours. The Lewiston-Auburn College Library is open Monday-Saturday for a total of 62.5 hours. The Libraries offer a wide range of services, both in person and virtually through the Web site. Services include circulation, course reserves, information and research assistance, instruction in using library resources, Internet and database searching, and interlibrary loan. For full information on the Libraries' resources and services, visit the Web site at library.usm.maine.edu.

The collection of the USM Libraries contains 1.5 million items, including access to a large number of electronic information resources, over 200 databases and 27,000 electronic journals; approximately 450,000 print volumes; 3,000 subscriptions to print periodicals, journals, newspapers, and yearbooks; over 785,000 microforms; more than 130,000 state and U.S. government documents; and over 4,000 DVDs and

## Computing Services

## Instructional Technology and Media Services

videotapes. Included in the Library's special collections is the Osher Map Library and Smith Center for Cartographic Education, the only separately established history of cartography library in northern New England. The cartographic collections contain fine examples of original maps, atlases, geographies, and globes spanning the years 1475 to the present. The original materials of some 60,000 maps are augmented by a 4,000 -volume reference collection of related works. The USM Libraries also includes the Special Collections Department which consists of a rare books and manuscripts collection, the University Archives, and the Jean Byers Sampson Center for Diversity in Maine, which includes the African American, the Lesbian, Gay, Bisexual, and Transgender, and the Judaica Collections. The rare book collections include textbooks, movable books, children's literature, American political history from the 17th to the 20th centuries, and a book history collection that spans five centuries with books from Medici Italy to American 20th-century fine press.

Supplementing these collections are the more than one million print titles held in the libraries of the other campuses of the University of Maine System, along with the Maine State Library, the state's Law and Legislative Reference Library, and the Bangor Public Library. The holdings of these libraries are available to the USM community through the easily accessed online catalog and our interlibrary lending system. MaineCat brings the collections of many Maine academic, public, and special libraries into one catalog, and is also accessible online. Holdings of MaineCat libraries, which include collections from public and college libraries, are available through online request to the USM community. The Libraries offer a variety of individual and group study spaces, over 150 student computers, and wireless access for USM students, faculty, and staff.

The Computing Services departments provide a variety of technology support services to students, faculty, and staff at the University.

Computer labs for general student use are located on the Gorham, LewistonAuburn, and Portland campuses and in the University Libraries. The computer labs have Microsoft Windows and Apple Macintosh computer systems, and academic software applications. Black and white or color printing is available for a nominal fee using the USM Card. Computer classrooms are available on all three campuses for class activity periods.

Resident students are provided an Internet connection in each room as part of their room package. The ResNet program, located in Bailey Hall, Gorham, assists with setup and maintenance of the resident student computers on a walk-in and appointment basis. A walk-in and call-in Helpdesk, located in Luther Bonney Hall, Portland, assists all faculty, staff, and students with computer problems, including some common University login, e-mail, and Internet problems. Assistance can be requested by phone at 780-4029, by e-mail at helpdesk@usm.maine.edu, or on the Web at www.usm.maine.edu/computing. The Campus Computer Store, located in Luther Bonney Hall, Portland, sells computers and accessories at educational discount rates to faculty, staff, and students. In addition discounted high speed Internet service from Time Warner is available to faculty, staff, and students.

More information about any of the services offered by Computing Services can be found at www.usm.maine.edu/computing, 780-4029, or e-mail to helpdesk@usm.maine.edu.

The Instructional Technology and Media Services (ITMS) Department provides classroom and instructional technology support for the academic programs of the University. This support includes group or individual sessions on instructional applications of technology in Portland, Gorham, or Lewiston-Auburn.

Other services include the delivery and maintenance of classroom equipment on all three campuses. The Department maintains a collection of nonprint materials, with electronic listings available on the USM Web site (www.usm.maine.edu/itms). ITMS staff are available to help with the rental of materials for classroom use.

Offices are located at 232 Luther Bonney Hall in Portland, (207) 780-4280, 3 Bailey Hall in Gorham, (207) 780-5356, and LAC Library Commons in LewistonAuburn, (207) 753-6540.

The Office of Academic Assessment coordinates the administration of various testing programs, such as USM's Mathematics Placement Program (e.g., Accuplacer Math Tests) for incoming and transfer students, in addition to certification and

## Support for Students with Disabilities

national tests for graduating students (e.g., Miller Analogies Test, GRE Subject Tests, LSAT, PRAXIS, and others). Students are encouraged to contact the office for further information at 253 Luther Bonney Hall, Portland campus and visit our Web site for test registration and schedules at www.usm.maine.edu/assessment.

The Office also conducts student assessment studies and student surveys, assists departments in evaluating courses and programs, develops tests and assessment instruments, and provides technical support to the faculty.

The Office of Support for Students with Disabilities (OSSD) provides a wide range of services to qualified students with sensory, mobility, physical, psychological, cognitive, learning and attention disabilities enrolled in USM credit and noncredit bearing courses and programs. Contact OSSD for information regarding particular needs. Documentation may be required. The office is located in 242 Luther Bonney Hall, Portland; 207-780-4706 or TTY 207-780-4395 or visit our Web site: www.usm.maine.edu/ossd.

## University Life and Student Services

The following programs and services are dedicated to supporting student learning and success. These programs and services support students during your educational experience. Activities, ranging from intercollegiate sports to résumé preparation, join the academic process in expanding the university experience for all students. More detailed information about student programs and services is available at individual Web sites and /or offices listed below. Questions regarding all areas in this section may be addressed to Craig Hutchinson, vice president for Student and University Life, 780-4035, or craigh@usm.maine.edu.

Athletics is an exciting part of student and university life at the University of Southern Maine. Few institutions can match the success of the Huskies' nationally recognized non-scholarship athletic program.

Nine different teams and countless individual performers have participated in national championship competitions, highlighted by the Huskies baseball team that captured the NCAA Division III National Championship in both 1991 and 1997. The women's basketball team has played in the four-team national championship tournament five times since 1998. Annually, several USM teams achieve a national ranking and qualify for postseason play sponsored by the NCAA or ECAC.

Student-athletes experience personal growth by being part of a team and by participating in competition. Through involvement in intercollegiate athletics and interaction with a nationally recognized coaching staff, student-athletes are challenged physically, mentally, and emotionally.

USM student-athletes are supported in their efforts to excel with a strong system of academic support services which include mandatory study hours for freshmen and progress checks with University faculty members. The Department of Athletics offers an 18-credit hour coaching certificate program which prepares individuals to coach at all levels. For more information about the coaching certificate courses, please visit www.usm.maine.edu/athletics or contact Meredith Bickford: 780-5997 or e-mail mbickford@usm.maine.edu.

USM sponsors 23 intercollegiate sports: 11 for women, 10 for men, and 2 coed offerings, including: cross country, women's cross country, field hockey, golf, men's soccer, women's soccer, women's tennis, women's volleyball, men's basketball, women's basketball, cheering, men's ice hockey, women's ice hockey, men's indoor track, women's indoor track, wrestling, baseball, men's lacrosse, women's lacrosse, softball, men's tennis, men's outdoor track, and women's outdoor track. In addition to the 23 varsity programs, the Recreational Sports Department also sponsors club sports teams in men's volleyball, sailing, dance, and men's hockey.

The Huskies compete in the Little East Conference, an eight-member conference comprised of public institutions in New England, and recognized as one of the most competitive Division III conferences in the nation. For more information please call 780-5430 or visit www.usm.maine.edu/athletics.

The Gorham Recreation and Fitness Center offers many recreational activities regardless of skill level or previous experience. Team sports may include flag football, volleyball, basketball, ultimate frisbee, six on six soccer, softball, volleyball, floor hockey, and arena football. Individual activities may include tennis, table tennis, darts, badminton, three-point shoot-out, free-throw competition, and nine-ball pool tournament. The ice arena has made ice hockey, broom ball, and free skating available to numerous groups. The fitness facility includes universal machines, free weights, and cardiovascular machines. Group exercise classes, personal fitness consultations, and a variety of other workshops are offered as well. White water rafting, deep sea fishing, and whale watching activities as well as trips to see the Red Sox, Bruins, and Celtics are frequently organized. For more information call 780-5649 or stop by the office located in 102 Hill Gym, or visit www.usm.maine.edu/recsports.

Sullivan Recreation and Fitness Complex

## Gorham Recreation and Fitness

## Career Services and Professional Life Development

## USM Police Department

courts lined for basketball, indoor tennis, badminton, and volleyball. It also offers indoor jogging. There are squash, wallyball, and racquetball courts, and two multipurpose rooms for aerobics, dance, yoga, martial arts, and more. The Fitness Centers offer Selectorized Power circuit stations, free weight equipment, treadmills, exercise bikes, steppers, climbers, elliptical fitness cross trainers, rowers, and stability balls. Equipment for wallyball is available for sign-out. A range of programs designed for busy commuters is available: aerobics, yoga, martial arts, racquetball, introductory dance classes, personal fitness consultations, and relaxation workshops. Outdoor recreation clinics and trips include camping, canoeing, cross country skiing, sea kayaking and more. For more information, call (207) 780-4939 or stop by the office in 104 Sullivan Complex or visit www.usm.maine.edu/sullivancomplex.

The Career Services and Professional Life Development Centers provide comprehensive career assistance for all matriculated students. Students are encouraged to visit the Centers early in their academic career to begin preparing for the future. They provide assistance with career decision making, interest testing, a part-time job service, a computerized career exploration service, and workshops to help students design résumés and learn how to interview with employers. They bring employers to campus for interviews, informal meetings, and job fairs. They are a participating institution in the Maine Recruiting Consortium and the eRecruiting system, a job database program that draws employers from across the country.

The Cooperative Education Program helps place students in short-term positions with career-related businesses. In most cases, students who are eligible to apply for Cooperative Education placements receive academic credit for the learning experience involved, as well as a salary from the employer. The office also maintains a list of available unpaid internship opportunities.

The Centers are located in Gorham at 7 College Avenue and in Portland in Payson Smith Hall. For more information please call 780-4220 or 780-5330. Career services are also available at Lewiston-Auburn College (753-6500) or visit www.usm.maine.edu/careers.

The USM Police Department is responsible for keeping the peace, preventing crime, and delivering a variety of services including security and crowd control, crime investigation, 24 -hour police coverage, management of parking and transportation, escort services and educational programs. The offices are located in Gorham in Upton Hall, and at the Sullivan Gym in Portland (780-5211 or emergency number 911).

## Crime Prevention and Safety

The University of Southern Maine is committed to safety and crime prevention on campus. Information on campus crime statistics, crime policies and procedures, and crime prevention programs is provided each year to the campus community in compliance with the Crime Awareness and Campus Security Act of 1990.

For emergencies, reporting of crimes, lost and found, or to report suspicious persons or maintenance/safety problems, call the USM Police Department at 780-5211, or emergency 911.

For safety concerns in the residence halls, students should contact a residence hall staff member at 780-5240.

For sexual assault or physical or domestic violence, call the USM Police Department ( 24 hours a day) at 911 . Students can call their resident assistant or resident director, 780-5240 the USM Counseling Center, 780-4050, or Sexual Assault Response Services, 774-3613.

## Shuttle Bus Service

The University provides a shuttle bus that runs between Portland and Gorham Monday through Saturday during the fall and spring semesters. Schedules are provided upon request from the Parking and Transportation Office at the entrance to the parking garage (Portland), by calling 780-4718, or on our Web site at www.usm.maine.edu/police/bus.htm.

## University Health and Counseling Services

## Dean of Student Life

Office of Early Student Success

## Parking

Anyone parking on campus is required to display a valid USM parking decal or permit. Decals are available at the University Parking and Transportation Office at the USM Police Department, Upton Hall, Gorham and at the Parking and Transportation Office located inside the parking garage on Bedford Street in Portland. Copies of the University motor vehicle rules are available at both locations and on our Web site at www.usm.maine.edu/police/parking.htm.

USM students or University of Maine law students paying the student health fee may use the services of USM's convenient, affordable, and accessible on-campus health care and counseling centers. All information gathered in both University Health Centers and University Counseling Centers is held in confidence. No information is released to University officials, faculty members, parents, friends, or outside agencies except upon written request of the student.

## Student Health Fee

Each semester students who take six or more credits are automatically assessed a health fee. This fee entitles students to unlimited free office visits in University Health Services (UHS) and 12 free counseling sessions in University Counseling Services. Students taking three to five credits may opt to pay the health fee in the first four weeks of the fall or spring semester. The health fee does not cover lab tests, wellness exams, and a few selected procedures. An optional summer health fee or fee-for-service arrangement is also available. The health fee is not health insurance. To purchase health insurance, contact UHS for information about the USM Student Health and Accident Insurance for basic coverage, and the Aetna Health Insurance for catastrophic coverage.

## University Health Services

UHS is staffed by skilled professional nurses, certified nurse practitioners, and physicans who understand college health issues, student budgets, and student diversity. Services available include: required immunizations, diagnosis and treatment of health problems; physical exams, athletic exams, work physicals, gynecological exams; lab services and tests; flu shots; consultations and referrals; travel information; self-care cold clinic and safer sex supplies; health screenings; communicable disease surveillance; and work study or volunteer opportunities.

Hours of operation are generally Monday through Friday, 8:00 a.m. - 4:30 p.m. The Portland center, located beside the Woodbury Campus Center, is open year round; the Gorham center, located on the first floor of Upton Hall, is open when residence halls are open. For information, call the Portland center at 780-4211, the Gorham center at 780-5411, or TTY 780-5646. The immunization hotline is 7804504. Additional information available at www.usm.maine.edu/health.

## University Counseling Services

The staff of licensed clinicians and graduate interns at University Counseling Services offer short-term counseling to undergraduate and graduate students. These services include crisis/emergency assistance; personal counseling (individuals, couples, multicultural, and groups); and referral services. Consultation services and workshops are also available to student groups, the faculty, and other staff members.

The offices are located in Room 105 Payson Smith Hall in Portland and Room 110 Upton Hall in Gorham. Hours are Monday through Friday, 8:00 a.m. - 4:30 p.m. For more information, call 780-4050. For information about counseling services at Lewiston-Auburn College, please call 753-6500. Information is also available at www.usm.maine.edu/health.

The Dean of Student Life serves as the first point of contact for all student complaints. The dean supports and advocates for all students. The dean also has oversight for the co-curricular programs within the University and a variety of student services within the Division of Student and University Life. The office is located in 100 Payson Smith Hall, 228-8258. Additional information is available at www.usm.maine.edu/studentlife.

The Office of Early Student Success (ESS) supports students during their transition into the college experience. This time is filled with both opportunities and challenges, often lasting for three to four semesters.

## Commuter Services

Off-Campus Housing

Woodbury Campus Center

## Residential Life and Resident Education

Brooks Student Center

Dining Services

## Honor Societies and <br> University Scholarships and Awards

ESS can support students in several ways, including the following: serving as an entryway into USM's student services; providing one-on-one "coaching" sessions to help students establish goals and a path for success; working with students to improve study skills and other academic strategies; serving as a resource for the parents and family members of USM students; connecting students with opportunities for involvement; offering Web-based resources such as informational Web sites and podcasts; and providing an "alcohol checkup" to help students explore if their alcohol use is interfering with life goals. For more information, please visit the ESS Web site at www.usm.maine.edu/ess.

Support services for commuter students including off-campus housing options, parking and transportation information, and more are available through the office of the Assistant Dean of Student Involvement and Activities, in the Woodbury Campus Center, Portland, 228-8200, and on the Web at www.usm.maine.edu/commuter.

Listings of available rooms, roommates, and apartments for students who wish to live off-campus are maintained on the Web site at www.usm.maine.edu/commuter.

The Woodbury Campus Center serves as the "living room" of Portland campus, with campus dining, bookstore, ATM and many other services available. Also located in the Woodbury Campus Center is the Area Gallery, the Women's Resource Center, the Center for Sexualities and Gender Diversity, the Student Involvement and Activities Center, Student Government Offices, Student Legal Office, and Multicultural Student Center. Contact the Woodbury Campus Center administrative offices at 228-8200 or visit www.usm.maine.edu/commuter.

Residential Life supports the University's educational mission by making sure that students can be successful in their pursuit of an academic degree. We provide clean, safe, and attractive living and learning environments for our students.

## Residence Halls

The University provides housing for approximately 1,500 students in seven residential facilities in Gorham. Accommodations are coeducational and offer convenient access to classes and campus events. Students living on campus may choose to apply to live in one of our special interest housing areas or living-learning communities.

For more information, contact the Department at (207) 780-5240, or visit 100 Upton Hall in Gorham; e-mail: reslife@usm.maine.edu, or visit www.usm.maine.edu/reslife.

The Brooks Student Center (BSC) serves as the "hub" for student life in Gorham. Whether you want to relax and study, grab a snack, or attend an event, BSC has something for you. BSC amenities include 24/7 access ATM and cash-to-card machines, campus bookstore, student mailboxes, computer stations, lounge space, bulletin boards, and three campus dining locations: the Real Food on Campus Dining Hall, the Husky Hideaway, and the Brooks Convenience Store. BSC is also home to the Office of Campus Involvement and Activities. For more information, contact (207) 780-5081.

Dining facilities are located on all campuses. In Gorham, Dining Services are provided in the dining hall and snack bar in the Brooks Student Center as well as the Ice Arena Kiosk, Bailey Hall Kiosk, and the Brooks Student Center Convenience Store. In Portland, options include the Food Court in the Woodbury Campus Center, University of Maine School of Law Café, and the Café in the lobby of Luther Bonney Hall and lower level of Payson Smith Hall. The Lewiston-Auburn campus features Café-LA.

The University is affiliated with several national honor societies. A partial list follows. For more information contact the academic area indicated. For general assistance call the Division of Student and University Life at 780-4035.

Beta of Maine Chapter of Alpha Kappa Delta (sociology)
Phi Kappa Phi (a national interdisciplinary honor society)
Golden Key International Honour Society (an international interdisciplinary honor society)

## Greek Life

## Student Government and Organizations

## Student Involvement and Activities Center

Office of Community Standards

Gamma Theta Upsilon (geography)
Kappa Zeta-at Large Chapter of Sigma Theta Tau (nursing)
Psi Chi (psychology)
Phi Sigma Iota (foreign language)
Eta Mu Chapter of Phi Alpha National Social Work Honor Society
Phi Sigma Alpha (political science)
Phi Alpha Theta Chapter of Alpha Gamma Phi (history)
Phi Delta Kappa (education)
Chi Tau (biological sciences)
Beta Gamma Sigma (business/accounting)
General Scholarships and Awards Each spring, the University awards a substantial number of grants and scholarships to students continuing their studies at USM. Some are specific to a particular area of study, and others are based on students' general achievements both inside and outside of the classroom.. For more information, visit www.usm.maine.edu/fin.

Greek letter organizations offer students the opportunity to participate in an alternative community emphasizing leadership, community service, academic achievement, and self-governance. Seven social fraternities and sororities are affiliated with USM. For more information about Greek organizations and getting involved at USM, call the Student Involvement and Activities Center, 780-4090.

The Student Government Association, comprised of a Student Body president and a 21 -member Student Senate, elected by undergraduates, is the principal governing body for students. A student activity fee, collected from each undergraduate student, is used by the Senate to pay for undergraduate activities. More than 50 recognized student organizations welcome involvement.

Students interested in journalism, literature or broadcasting may join the staff of the University Free Press, a weekly student newspaper; Words and Images, a literary magazine; or WMPG-FM, the USM community radio station. Students interested in TV production can become involved in USM's own cable TV station, G-TV, located on the Gorham campus.

Students are encouraged to take advantage of cultural activities, speakers, and special events available free or at minimal cost. For more information about student organizations and getting involved, call the SGA Office at 228-8510.

The Student Involvement and Activities Center provides support services for USM students and student organizations. From USM Welcome and Homecoming, to a variety of student clubs and other community-based events, the office helps students get involved in the USM community. Leadership development opportunities are also facilitated through the Centers. Offices are in the Woodbury Campus Center, Portland (780-4090), or Brooks Student Center, Gorham (780-5081).

While at the University, students are expected to conduct their affairs with proper regard for the rights of others and of the University. All members of the University community share a responsibility to maintain an environment where actions are guided by respect, integrity, and reason. When standards of conduct are violated, the University relies upon the Student Conduct Code. It is the responsibility of the Office of Community Standards to protect the campus community from disruption and harm by offering a program of educational discipline and by enforcing the Student Conduct Code. If students violate a state or federal law or a University regulation, they may be subject to state, federal, or University disciplinary action. In the enforcement of the Student Conduct Code the University functions in an administrative manner. For a complete copy of the Student Conduct Code, check the Office of Community Standards Web page: www.usm.maine.edu/ocs, or call 780-5242.

The Women's Resource Center provides advocacy, leadership, and educational programming for women attending USM. The center offers a safe, comfortable, and relaxing space for women to meet each other, engage in discussion, and explore the numerous resources, programs, activities, and groups available. The Resource Center provides outreach to the diversity of women at USM in the form of programming, consultation, trainings, and leadership development. The Center also is the home of an extensive lending library of books and articles about a variety of issues

## Center for Sexualities and Gender Diversity

## Community Service and Civic Engagement

as well as women's history, feminist philosophy, fiction by women, and much more. The Women's Resource Center, located in the Woodbury Campus Center in Portland, works collaboratively with student groups, University departments, and the wider Maine community to address the wide range of issues important to women, focusing on the personal, academic, career, economic, and leadership development for women. For more information call 780-4996.

The University of Southern Maine's Center for Sexualities and Gender Diversity seeks to ensure a University environment that is positive, safe, and supportive for members of the gay, lesbian, bisexual, transgender, questioning, and allied (GLBTQA) community. Through a series of educational opportunities, support services, and advocacy work, the program works collaboratively with students and student groups, University organizations and departments, and the greater community. The program also oversees the USM Safe Zone Project, a program that conveys an inclusive message to the University community. Safe Zone Project volunteers attend a short orientation program and then display a rainbow-striped sticker with the words "safe zone USM." This shows that they are committed to being identified as safe and supportive contacts for GLBTQA students, faculty, and staff members. For more information on these programs, please call 228-8235 or visit the Web site at www.usm.maine.edu/glbtqa.

The Office of Community Service and Civic Engagement is a clearinghouse and a resource for students, faculty, and the community to promote civic engagement, including community service, service-learning, and certain internship opportunities. Students will find support for community service, including current opportunities based on community needs, project development help, connections for service to academic credit, and work-study jobs and leadership opportunities including an AmeriCorps Service Leaders Program. Faculty can receive support in developing service-learning options, ranging from single assignment projects to semester-long projects. Community organizations and agencies work through the office to access volunteers, interns, and service leadership from the USM student community. The office is located in the historic Alumni House at 23 Brighton Avenue in Portland; phone 228-8091, e-mail community@usm.maine.edu, or visit www.usm.maine.edu/studentlife/communityservice.

The Chaplaincy offers programs and services to support religious and spiritual life in all its expressions. "The Spirit of USM" program series explores a different aspect of spiritual life each year. Associate chaplains sponsored by their respective faith communities offer services to students and student groups in religious or spiritual traditions, and work together to offer programs encouraging spiritual life and interfaith dialogue. A space is provided for reflection, meditation, or prayer for individuals and groups. This space and the office of the interfaith chaplaincy are located in the historic Alumni House at 23 Brighton Avenue in Portland; phone 228-8093, e-mail interfaith@usm.maine.edu or visit www.usm.maine.edu/studentlife/interfaith.

The Office of Equity and Compliance is committed to ensuring that all units of the University foster a respectful, inclusive, and fair campus environment, free from discrimination and harassment. The Office oversees the University's compliance with affirmative action, sexual harassment, disability, and other civil rights statutes and policies and assists search committees in conducting equitable processes in the recruitment of faculty and staff. The goal of the Office is to prevent discrimination or harassment from occurring and to provide an effective means of raising and promptly resolving complaints. If an individual has a question, concern, or complaint about discriminatory harassment they should contact the Office at (207) 7805510 or by TTY at (207) 780-5646. For a complete copy of the policy, additional information, or to express concern about sexual harassment, call the Office of Equity and Compliance at (207) 780-5510, the Maine Human Rights Office, 851 State House Station, Augusta, ME 04333-0051, (207) 624-6050 or the Office of Civil Rights, U.S. Department of Education, Region 1, John W. McCormack Post Office and Courthouse Building, Boston, MA 02109, (617) 223-9692.

Multicultural Student Affairs

This office is dedicated to increasing the awareness and appreciation of the many diverse cultures and ethnicities at USM through programming, dialogue, and cultural events. It supports African/African American, Latino/a, Asian/Asian American, and North American Indigenous students to achieve their career and perceived goals. Multicultural Student Affairs is home of the Multicultural Center, the North American Indian Tuition Waiver and Scholarship Program, and the Culture Beat newsletter.

The Multicultural Center is dedicated to providing a supportive and diverse environment for the USM community. The Center helps create community for racially and/or ethnically underrepresented students, where cultural activities and celebrations occur and affiliated student organizations meet. Through its programming, the Center explores critical issues about race, class, ethnicity, nationality, and culture.

The Center is open to the entire USM community. However, the Center has a unique role with regard to the support of students from marginalized communities and cultures. The office is located in the Woodbury Campus Center in Portland. For more information call 780-4006 or visit www.usm.maine.edu/eeo/culture.

In addition to the Student Conduct Code, USM has a number of important University policies which govern campus life. These policies and many others can be found in The Navigator, the student handbook, available on the Web at www.usm.maine.edu/navigator. In order to review these policies in their entirety, please consult the student handbook or the appropriate department listed.

## HIV/AIDS Policy

The USM HIV/AIDS policy has been established to protect the rights of individuals infected with HIV (Human Immune Deficiency Virus) and the health and safety of all others at the institution. USM will not discriminate in any manner against any person who is infected with HIV, including admissions, facilities access, hiring, housing, promotion, tenure, or termination. USM will not require HIV testing for either its students or employees and information about suspected or known HIV infection will be kept confidential. For more information or advice regarding this policy, call 780-4211.

## Alcohol and Substance Abuse Policy

The University of Southern Maine views alcohol and substance abuse as a serious problem both nationally and on-campus and wishes to do everything possible to address it. In compliance with the Drug Free Schools and Communities Act and the Drug Free Workplace Act passed by Congress, the University publishes annually a booklet which informs all students and employees of the University's substance abuse policy, sanctions for violation of the policy, state and federal alcohol and drug laws, offenses and sanctions. Below is a summary of USM's alcohol and substance abuse policy.

The possession, use, or distribution of illegal drugs, as defined by federal, state, and local statutes, is prohibited at any time on University property. Students who possess, use, or distribute illegal drugs are liable for public law enforcement sanctions and University disciplinary action. Use of alcoholic beverages on University property shall be in compliance with state laws and campus regulations and procedures. Violation of such laws, regulations, and procedures may result in disciplinary action and, where applicable, criminal proceedings.

University Counseling Services and University Health Centers provide access to substance abuse services for students at USM. Through the assessment process, the student and counselor work together to determine the most appropriate level of care. Available services include individual substance abuse counseling, group therapy, and educational groups. The counselor and student may also decide together that referral to a support group or a more intensive level of treatment in the community would be the best option. For more information or to schedule an appointment, call University Counseling at 780-4050 or University Health at 780-4211.

## Hazing

Injurious hazing is prohibited by Maine state law and University of Maine System policy. No person or organization shall create a situation that recklessly or intentionally endangers the mental or physical health of a student. Any civil or criminal action shall be in addition to any disciplinary action taken. For more information, contact Office of Community Standards 780-5242 or visit www.usm.maine.edu/ocs.

## Sexual Harassment Policy

Sexual harassment of either employees or students is a violation of federal and state laws. It is the policy of the University of Southern Maine that no member of the University community may sexually harass another. In accordance with its policy of complying with non-discrimination laws, the University of Maine System will regard freedom from sexual harassment as an individual employee and student right which will be safeguarded as a matter of policy. Any employee or student will be subject to disciplinary action for violation of this policy. Sexual advances, requests for sexual favors, and other verbal or physical contact of a sexual nature constitute sexual harassment when: 1) submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or education; or 2) submission to or rejection of such contact by an individual is used as the basis for academic or employment decisions affecting the individual; or 3 ) such conduct has the purpose or effect of interfering with an individual's academic or work performance or creating an intimidating, hostile, or offensive employment, educational, or living environment.

Consenting relationships may constitute sexual harassment under this policy. When a professional power differential exists between members of the University of Southern Maine and a romantic or sexual relationship develops, there is a potential for abuse of that power, even in relationships of apparent mutual consent. A faculty or staff member should not engage in such relationships. Further, the University prohibits the abuse of power in romantic or sexual relationships.

To assure that power is not abused and to maintain an environment free of sexual harassment, a faculty or staff member must eliminate any current or potential conflict of interest by removing himself or herself from decisions affecting the other person in the relationship. Decisions affecting the other person include grading, evaluating, supervising, or otherwise influencing that person's education, employment, housing, or participation in athletics or any other University activity. It is the policy of the System to ensure fair and impartial investigations that will protect the rights of persons filing sexual harassment complaints, the persons complained against, and the System as a whole.

For a complete copy of the policy, additional information, or to express concern about sexual harassment, call the Office of Campus Diversity and Equity at 7805094 (TTY 780-5646), or the Office of Civil Rights, U.S. Department of Education, Region 1, John W. McCormack Post Office and Courthouse Building, Boston, MA 02109, 617-223-9692.

## Sexual Assault Policy

The University of Southern Maine expressly prohibits and will not tolerate any sexual assault or sexual misconduct as defined by USM policy. These behaviors all constitute violations of the Student Conduct Code and will be met with appropriate sanctions, up to and including dismissal. Many are also violations of Maine law and may be prosecuted criminally.

For a complete copy of the University of Southern Maine Sexual Assault Policy, call the Office of Community Standards, 780-5242 or visit www.usm.maine.edu/ ocs/assaultpolicy.html.

When sexual assault has occurred, it is important to tell someone who can be trusted. Campus resources include USM Police, Student and University Life staff and other University faculty and staff, academic advisers, Resident Assistants (RAs), Resident Directors (RDs), Greek Advisor, and athletic coaches. Off-campus community resources include local hospital emergency rooms, rape crisis centers, and local police departments.

## Available Resources

University Health Services
Medical assessment and follow-up, testing for sexually transmitted diseases and pregnancy. In Portland (modular unit next to Sullivan Gym): 780-4211 or in Gorham (Upton Hall): 780-5411.

## University Counseling Services

Counseling for student-victims and students related to victims. In Portland (106 Payson Smith), or in Gorham (Upton Hall): 780-4050.

USM Police Department
Services: The USM Police, the 24-hour police department. In Portland: 7805211, and at Lewiston-Auburn 780-5211. In Gorham (Basement, Upton Hall): 7805211, Emergency: 911.

Office of Community Standards
Services: Consultation and filing complaints of violations of the student conduct code. In Gorham (125 Upton Hall): 780-5242.

24-hour Community Crisis Centers: May include medical accompaniment to hospital emergency rooms for rape kit/forensic exams, anonymous hot-line counseling and referral services, legal advice and courtroom accompaniment if charges are pressed.

Sexual Assault Response Services of Southern Maine
(Cumberland and York Counties). . . . . . . . . . . . . . . . 774-3613/1-800-313-9900
Sexual Assault Support Services of Midcoast Maine . . . . . . . . 1-800-822-5999
Lewiston-Auburn Sexual Assault Crisis Center . . . . . . . . . . . . . . . . . . . 795-2211
Augusta Sexual Assault Crisis and Support Center . . 626-0660/1-800-421-4325
Statewide Sexual Assault Hotline . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 871-7741
(will route calls to nearest center)

## The Core Curriculum

## Rationale

## Goals and Structure

The Core curriculum has been designed to provide undergraduates with a general education, a core of skills and knowledge that every individual needs either to excel in professional life or to build a rich and fulfilling personal life. It is vital that students view the Core as a set of goals, not a checklist of courses. In the wider world, competency counts. The Core is designed to foster those competencies that, by wide agreement, matter the most. It can only succeed, however, where students make the goals of the Core their own.

Students matriculated at Lewiston-Auburn College, from fall 2007 on, will complete the Lewiston-Auburn College Common Core curriculum requirements. For more information about the Common Core curriculum, refer to the LewistonAuburn College section of this catalog.
A. Entry Year Experience Beginning in fall 2009 all entering students with fewer than 24 credit hours are required to complete an Entry Year Experience course in their first semester at USM. Entry Year Experience (EYE) courses are theme-based and employ a variety of perspectives to explore a significant question about human cultures and the natural world. EYE courses aid students in their transition to college in an academically rigorous context emphasizing critical reading, thinking, and writing.
B. The basic competence component of the Core aims to develop essential skills in writing, using quantitative information, and critical thinking. These skills are fundamental tools that are relevant to all other courses that students take. Students should complete all courses relevant to the basic competence component of the Core as early as possible after beginning their studies at USM. Whether a first-year student or a transfer, every student should strive to complete all Core competency requirements by the end of the student's first year at USM.
C. The methods of inquiry/ways of knowing component of the Core aims to develop a broad appreciation of the many ways of looking at and understanding the world that humans have found useful in the current era and in the past. In pursuit of this overriding goal, this component of the Core introduces the student to a wide range of different academic disciplines: their subject matter, their methods, and their broader purposes. This part of the Core curriculum is subdivided into four areas: fine arts, humanities, social sciences, and natural sciences.
(1) Fine arts courses seek to explore the aesthetic dimension through personal performance and through historical study of the arts.
(2) Through the humanities, the Core curriculum seeks to foster knowledge of literature and of the diversity of our historical and cultural heritage. What links these studies together is their focus on the meaning and values of human acts. Under this two-fold division of the humanities, the student develops the critical and aesthetic skills needed to interpret literature and studies the methods through which we attempt to make sense of the past or understand other cultures.
(3) The social sciences aim to acquaint the student with the methods and theories used to study the social, political, or economic behavior of groups or individuals.
(4) Through lecture-laboratory courses, the natural science offerings seek to develop an understanding of scientific methods, theories, and the contribution of a particular science, and of natural science in general, to our understanding of the world.
In addition to work in one of the four areas enumerated above, each methods of inquiry/ways of knowing course is intended to provide further experience in the three Core competencies, including writing, quantitative analysis and decision making, and critical thinking.

Most Core requirements are met by passing one or more courses of specific types. Each course that can be used to satisfy one of the Core requirements has a letter in the series (C-K) added to its department and number designation (e.g., ENG 100C, MAT 105D). The letters associated with various requirements are indicated below.

Some of the Core curriculum requirements may be met through courses that are part of the University Honors Program. Only students admitted into the Honors Program may use Honors (HON) courses to fulfill Core requirements. Successful completion of the Honors Colloquia (HON 101, HON 102 or HON 103, HON 201, and HON 202 or HON 203) will satisfy the following Core curriculum requirements: Skills of Analysis/Philosophy (E), History-centered Fine Arts (G), Humanities Literature (H), Other Times/Other Cultures (I) and Natural Sciences (K). Students who do not successfully complete all the Honors Colloquia should consult with the director concerning the use of Honors Colloquia to satisfy Core curriculum requirements. Additionally, completion of HON 100 will satisfy the English Composition (Area C) of the Core requirements. Completion of HON 301W or HON 311W will satisfy the Writing Intensive (W) Core requirement. Completion of HON 201 will satisfy the Natural Sciences (K) Core requirement.

In addition, many Russell Scholars courses will satisfy USM Core curriculum requirements. Students should consult with their Russell Scholars mentor concerning the use of Russell Scholars courses to satisfy Core requirements. Any full-time residential student in good academic standing is eligible to be a Russell Scholar. Other criteria include: completion of application into the program and an interview with a member of the Russell Scholars faculty.

## Entry Year Experience

Entering students with fewer than 24 credit hours are required to complete an Entry Year Experience course in their first semester at USM. Fulfillment of the EYE requirement occurs upon completion of an EYE course with a passing grade. Students who have not satisfied their English Composition requirement (see below) must enroll in an appropriate English Composition course at the same time as they are enrolled in an EYE course. Students may request waiver of the EYE requirement if they have completed an equivalent course at another institution. Students enrolled in Honors, Russell Scholars Program, or in a Lewiston-Auburn College program, or transfer students with 24 or more credit hours are not required to take an EYE course.

| Courses offered in $2009-2010$ |  |  |  |
| :--- | :--- | :--- | :---: |
| EYE | 102 | Sustainability, Culture, and the Environment |  |
| EYE | 103 | Shopping: American Consumerism |  |
| EYE | 105 | Life is a Matrix |  |
| EYE | 107 | HIV/AIDS |  |
| EYE | 108 | Culture, Identity, and Education |  |
| EYE | 109 | Gender, Representation and Resistance |  |
| EYE | 110 | Literature and Medicine |  |
| EYE | 111 | A World of Words: Language, Power, and Environment |  |
| EYE | 112 | The Built Environment |  |
| EYE | 113 | The Pleasure of Eating/Animals |  |
| EYE | 115 | What is Sex? |  |
| EYE | 116 | Nature/Nurture |  |
| EYE | 117 | Thoreau: Nature, Self, and Society |  |
| EYE | 118 | Musician's Health |  |
| EYE | 119 | Metamorphoses |  |
| EYE | 121 | Studio Experience: Art and the Creative Economy |  |
| EYE | 122 | Creation Stories |  |
| EYE | 123 | The Forest |  |
| EYE | 124 | Birth of a Language in Nicaragua |  |
| EYE | 125 | Getting Down to Business |  |

## Basic Competence

In support of the Basic Competence goals of the Core, students are required to take courses (or otherwise demonstrate competency) in each of three areas: (1) English composition, (2) quantitative decision making, and (3) skills of analysis.

The English Composition requirement can be met in any one of three ways:

1) Score 500 or above on the CLEP General English Composition Test (See Prior Learning Assessment for details) 3 credits
2) Successfully complete ENG 104C, ENG 100C, ENG 101C, ESL 100C, HON 100 C , LCC 110C, LCC 111C, RSP 100C, or RSP 104C.
3) Earn credit for the requirement through AP or transfer (see Prior Learning Assessment and Transfer Affairs offices for details).
Note: Students whose SATs fall below 550 must register for ENG 104C. Nonnative English speakers whose SATs fall below 550 or whose TOEFL score is below 79 must take the ESOL program's placement test before registering for an English class. See the Academic Policies section of the catalog for more information.
The Writing-intensive (W) requirement is met by successfully completing an approved "W" course. At USM, writing-intensive courses have English Composition as a prerequisite (and are thus distinct from the English Composition course) and are designed to do the following:

- the course takes improvement in student writing as one of its central goals and communicates this focus to students in the syllabus;
- the course is conspicuously writing-intensive and normally includes a variety of different types of writing, used for a variety of different purposes;
- writing is a frequent mode of interaction among students as well as between students and faculty;
- course curriculum includes explicit discussion of writing issues and acquaints students with writing-related resources;
- course promotes revision of written work.

Courses that satisfy the "W" requirement may also carry another letter designation, for example, "ENG 120 H/W."

The Quantitative Decision Making (D) requirement can be met in one of three ways:

1) Pass a locally administered examination (no credit)
2) Successfully complete an approved "D" course (e.g., MAT 105D, MAT 110D, MAT 120D, PSY 201D, SOC 307D)
3) Pass a CLEP examination in mathematics (see Prior Learning Assessment Office for details).
Note: a) Students must meet USM's mathematics readiness requirement before registering for a Quantitative Decision Making course. b) Students in departments that do not specify mathematics requirements should consult their advisors or the Advising Services Office for guidance in selecting a course in this area.
The Skills of Analysis (E) requirement is met by passing an approved "E" course (e.g., various 100 -level PHI courses, or LIN 112E, SOC 210E, etc.) (3 credits) Note: Any $100-$ level PHI course can be repeated by taking any other 100 -level PHI course in accordance with the University Repeat Course Policy.

## Methods of Inquiry/Ways of Knowing

The Fine Arts requirement is satisfied by successfully completing one course in each of the following two areas. The courses must be selected from different departments.

1) An approved (F) performance-centered arts course
(3 credits)
2) An approved (G) history-centered arts course
(3 credits)
The Humanities requirement is satisfied by successfully completing one course in each of the following two areas. The courses must have different prefixes.
3) An approved $(\mathrm{H})$ literature course (3 credits)
4) An approved (I) other times/other cultures course (3 credits)

The Social Science requirement is satisfied by successfully completing two approved (J) social science courses. The courses must be selected from different departments.
(6 credits)
The Natural Sciences requirement is satisfied by successfully completing one approved $(\mathrm{K})$ natural science course and the laboratory course associated with that "K" course.
(4 credits)
Note: Natural science majors do not have to take "K" courses outside their majors to fulfill the natural science component.

Core Curriculum Regulations

1. The student has primary responsibility for ensuring that she or he completes the minimum proficiency requirements and the Core curriculum requirements. Undeclared majors should seek advice from the Advising Services Office. Effective with the fall of 1996 , students admitted with conditions are expected to complete their minimum proficiency requirements as outlined in their

Transfer Students<br>and the Core Curriculum

academic support plan. Declared majors should consult their school, college, or department advisors.
2. There can be no more than one overlap between the courses a student takes to fulfill the Core curriculum requirements and the courses that count toward the student's major. "Overlap" is defined in terms of each course's three-letter prefix (e.g., ENG, SOC, WST); that is, a student may take only one course toward the Core that has the prefix of the student's major. (The overlapping Core course may itself also count toward the major or it may just share a prefix with the major.)
3. The student must satisfy the basic competence requirements in English Composition (Area C) and Quantitative Decision Making (Area D) by the time the student completes 60 credits. Students are also strongly encouraged to complete the Skills of Analysis (Area E) requirement as early as possible. Transfer students with more than 45 credit hours need to check with their academic advisor or their academic dean.
4. Courses taken to satisfy the Core curriculum requirements may not be taken on a pass-fail basis.

All transfer students in baccalaureate degree programs are expected to meet the Core curriculum requirements as outlined above. The following guidelines should be noted:

## Basic Competence

Transfer students should complete the Basic Competence requirements as early as possible after admission to the University.

The English Composition (C) requirement can normally be partly satisfied by transfer credit for an English composition course. If no such course is available for transfer credit, the student should refer to the other options noted under the Core curriculum requirements. The Writing-intensive requirement (W) can be met by transfer credit where the institution offering the transferred course has an established category of writing-intensive courses or where the student has completed a two-semester sequence in English composition. Students who believe they have taken a course at another institution that meets USM's writing-intensive (W) requirement are encouraged to apply for a waiver. Inquiries about and applications for waiver should be addressed to Judy Tizon, associate provost, Undergraduate Education, P.O. Box 9300, Portland, ME 04104-9300. In the application a student must identify how the course meets the objectives of USM's writing-intensive courses and provide appropriate documentation. Applications for waiver are reviewed as received by the coordinator, who makes a recommendation to the associate provost for Undergraduate Programs. The associate provost is responsible for making the final determination about waiver.

The Quantitative Decision Making requirement can normally be satisfied by transfer credit for an equivalent mathematics or statistics course. If no such course is available for transfer credit, the student should refer to the other options noted under the Core curriculum requirements.

The Skills of Analysis/Philosophy requirement can normally be satisfied by transfer credit for a course that deals with logic, reasoning, or analytical thinking. If no such course is available for transfer credit, the student should refer to the other options noted under the Core curriculum requirements.

## Methods of Inquiry/Ways of Knowing

These requirements can normally be satisfied by transfer credit for courses in each of the areas of the Methods of Inquiry/Ways of Knowing component. That is: one performance-centered art course, one history-centered art course, one literature course, one other times and/or other cultures course, two social science courses from different departments, and one natural science course with a lab. Subject to specific school/college policies, in general any CLEP examination that satisfies coursework in an area of the Core curriculum will satisfy Core requirements for that area. When a specific requirement cannot be satisfied by transfer credit, upon initial transfer evaluation at matriculation, the student is expected to take the appropriate course(s) from the list below.

Courses Approved<br>to Satisfy Core<br>Curriculum<br>Requirements

In course registration schedules and other publications, courses approved to satisfy Core curriculum requirements are flagged by a letter following the course number. Additional Core-designated courses may appear in the course schedule or on-line schedule for any given semester. Please consult with your advisor regarding the availability of these additional courses. Not all courses are offered every semester or year.

| Basic Competence |  |  |
| :---: | :---: | :---: |
| English Composition |  |  |
| ENG | 100C | College Writing |
| ENG | 101C | Independent Writing |
| ENG | 104C | Enriched College Writing |
| ESL | 100C | College Writing |
| HON | 100C | Thinking and Writing in Honors |
| LCC | 111C | College Writing: Language and Literacies: Enrichment |
| LCC | 110C | Language and Literacies in a 21st Century World |
| RSP | 100C | Russell Scholars Writing I |
| RSP | 104C | Enriched College Writing |
| Quantitative Decision Making |  |  |
| ESP | 290D | Environmental Statistics |
| GYA | 202D | Research Methods |
| HON | 105D | Calculating and Reasoning with Symbolic Representations |
| LCC | 150D | Statistics for Informed Decision Making |
| MAT | 105D | Mathematics for Quantitative Decision Making |
| MAT | 120D | Introduction to Statistics |
| MAT | 140D | Pre-Calculus Mathematics |
| MAT | 148D | Applied Calculus |
| MAT | 152D | Calculus A |
| MAT | 210D | Business Statistics |
| MAT | 211D | Probability |
| PSY | 105D | Statistics in Psychology |
| SOC | 307D | Quantitative Research Methods |
| Skills of Analysis/Philosophy |  |  |
| CLA | 171E | Etymology for Everyone |
| COS | 120 E | Deductive Logic |
| ECO | 103E | Critical Thinking About Economic Issues |
| ENG | 230E | Literacy Studies |
| ENG | 244E | Introduction to Cultural Studies |
| HUM | 210E | Cultural Fieldwork |
| LCC | 200E/W | Creative Critical Inquiry into Modern Life |
| LCC | 370E/W | Toward a Global Ethics |
| LIN | 112 E | Analyzing Language |
| LAC | 370E | Ethics in the Organization |
| PHI | 102E | Introduction to Philosophy: Quest for Certainty |
| PHI | 105E | Introduction to Philosophy: Philosophy through Its History |
| PHI | 106E | Introduction to Philosophy: Why Philosophize? |
| PHI | 107E | Introduction to Philosophy: World Philosophy |
| PHI | 109E | Introduction to Philosophy: Law, Politics and Society |
| PHI | 110E | Introduction to Philosophy: Feminist Perspectives |
| PHI | 111E | Introduction to Philosophy: Philosophical Reading (and Writing) |
| PHI | 112E/W | Introduction to Philosophy: Feminist Perspectives |
| PHI | 205E | Symbolic Logic |
| SOC | 210E/W | Critical Thinking About Social Issues |
| Methods of Inquiry/Ways of Knowing |  |  |
| Fine Arts |  |  |
| Performance-centered arts |  |  |
| ART | 141F | Fundamental Design I |
| ART | 151F | Fundamental Drawing I |
| COR | 119F | The Illuminated Autobiography |
| ENG | 201F | Creative Writing |
| ENG | 202F | Memoir and Autobiography |


| ENG | 300F | Fiction Writing |
| :---: | :---: | :---: |
| ENG | 301F | Poetry Writing |
| ENG | 302F | Fiction Workshop |
| ENG | 303F | Poetry Workshop |
| HUM | 105F | Basic Photography |
| HUM | 307F | Creative Nonfiction |
| MUS | 110F | Fundamentals of Music |
| MUS | 130F | Music Theory I |
| MUP | 101F | Applied Music |
| MUP | 102F | Applied Music |
| MUP | 201F | Applied Music |
| MUP | 202F | Applied Music |
| MUS | 334F | Electronic Music I |
| MUS | 400F | Southern Maine Symphony Orchestra |
| MUS | 401F | University Chorale |
| MUS | 402F | University Concert Band |
| MUS | 405F | Chamber Singers |
| MUS | 408F | Wind Ensemble |
| RSP | 104F | Russell Scholars Seminar: Acting and Performance |
| THE | 102F | Acting: Performance |
| THE | 103F | Contemporary Dance I |
| THE | 134F | Production Management |
| THE | $\begin{gathered} 135 \mathrm{~F} / \\ 136 \mathrm{~F} \end{gathered}$ | Stagecraft and Lab |
| THE | 170F | Public Speaking |
| THE | 175F | Oral Interpretation |
| THE | 203F | Musical Theatre Dance |
| History-centered arts |  |  |
| ART | 101G | Approaches to Art |
| ARH | 110G | Visual Environment |
| ARH | 111G | Art History: Prehistoric through Medieval |
| ARH | 112G | Art History: Renaissance to the Present |
| HUM | 185G | Thinking About Art |
| LCC | 250G | Thinking About Art, Thinking Through Art |
| MUS | 100G | Music Appreciation and History |
| MUS | 102G | Music of the Portland Symphony |
| MUS | 103G | Introduction to Jazz |
| MUS | 120G | Music Until 1900 |
| MUS | 121G | Classical and Romantic Music |
| MUS | 202G | Music in America |
| MUS | 203G | Music in the 20th Century |
| MUS | 220G | Twentieth Century Music |
| RUS | 293G | Survey of Russian Cinema |
| THE | 101G | Introduction to Drama |
| THE | 231G | Costuming |
| THE | 353G | Dramatic Literature and Theatre History III: Romantic to World War II |
| Humanities |  |  |
| Literature |  |  |
| CLA | 283 H | Epic Hero in Ancient Literature |
| CLA | 284H | What Would Antigone Do? Tragic Questions, Modern Responses |
| ECO | 105H | A Novel Approach to Economics |
| ENG | 120H/W | Introduction to Literature |
| ENG | 150H/W | Topics in Literature |
| FRE | 283 H | Contemporary French Thinkers (in English translation) |
| GER | 281H | The German Novelle (in English translation) |
| GER | 351H | Introduction to German Literature I |
| GER | 352 H | Introduction to German Literature II |
| HON | 202H | Progress, Process, or Permanence |
| HUM | 120 H | Introduction to Literature |
| HUM | 213 H | Metaphor in Literature, Science, and Religion |
| HUM | 223 H | Life and Literature after Darwin |


| HUM | 250H | Song as Literature |
| :---: | :---: | :---: |
| HUM | 251H | Masculinities in U.S. Literature and Culture |
| HUM | 318H | Photography and Poetry: Two Ways of Speaking |
| HUM | 320 H | Early African-American Literature and Culture |
| HUM | 342H | Women of Color in Fiction |
| $\begin{gathered} \text { HUM } \\ \text { /SBS } \end{gathered}$ | 358H | Motherhood: Political Institution, Cultural Icon, Defining Experience |
| HUM | 389H | Sexuality in Literature and Film |
| RSP | 250 H | Songs and Society |
| RSP | 300H | England and the Humanities |
| RUS | 281H | Russian Literature in Translation |
| SPA | 281H | Masterpieces of Spanish American and Brazilian Literature (in English translation) |
| SPA | 351H | Readings in Contemporary Spanish Literature |
| SPA | 352H | Readings in Modern Latin American Literature |
| THE | 150H | Play Analysis |
| Other ti | mes/Oth | ultures |
| ANT | 202I | Origins of Civilization |
| ANT | 2201 | North American Indians |
| ANT | 222I | Peoples of the North |
| ANT | 224I | Ancient Mesoamerica |
| ANT | 230I | Hunters and Gatherers |
| ANT | 232I | The Anthropology of Sex and Gender |
| ANT | 233I | Food and Culture |
| ANT | 250I | Archaeology of South America |
| ANT | 301I | Victims of Progress: Indigenous Peoples in the Modern World |
| ASL | 102I | Beginning American Sign Language II |
| ASL | 201I | Intermediate American Sign Language I |
| ASL | 202I | Intermediate American Sign Language II |
| CLA | 285I | Classical Mythology |
| CLA | 291I | The Golden Age of Greece |
| CLA | 292I | Rome, from Republic to Empire |
| COR | 122I | Introduction to Islamic Civilization |
| COR | 148I | Northern Ireland: History, Culture, and Conflict |
| COR | 162I | Diversity amidst Globalization |
| CPI | 211 I | Cultural and Community Fieldwork and Seminar |
| ECO | 106 I | Economic, Social and Cultural Change |
| ECO | 2201 | U.S. Economic and Labor History |
| FRE | 102I | Beginning French II |
| FRE | 107I | Intensive Beginning French |
| FRE | 201I | Intermediate French I |
| FRE | 202I | Intermediate French II |
| FRE | 207I | Intensive Intermediate French |
| FRE | 291I | French Civilization: An Historical Approach (in English) |
| FRE | 292I | Topics in Contemporary Francophone Civilization |
| GEO | 211I | Middle America: Lands and People |
| GER | 102I | Beginning German II |
| GER | 107I | Intensive Beginning German |
| GER | 201I | Intermediate German I |
| GER | 202I | Intermediate German II |
| HON | 101I | Wisdom Stories from Antiquity |
| HON | 102I | Truth(s), Lie(s), and Legacy(s) in a Medieval Mindscape |
| HTY | 101I | Western Civilization I |
| HTY | 102I | Western Civilization II |
| HTY | 121I | U.S. History to 1800 |
| HTY | 122I | U.S. History to 1900 |
| HTY | 123 I | U.S. History since 1900 |
| HTY | 141I | African American History to 1865 |
| HTY | 142I | African American History since 1865 |
| HTY | 152I | The Islamic Near East |
| HTY | 171I | Traditional East Asia |


| HTY | 172I | Modern East Asia |
| :---: | :---: | :---: |
| HTY | 181I | Latin America I |
| HTY | 182I | Latin America II |
| HUM | 135I | United States Studies I |
| HUM | 136I | United States Studies II |
| HUM | 246 I | The Vietnam Era |
| HUM | 260I | Themes of Popular Culture |
| HUM | 301I | French North American Studies |
| HUM | 310I | French Settlement in the Northeast |
| HUM | 313I | What is 'Race'? |
| HUM | 325I | Issues in World History and Geography I |
| HUM | 326I | Issues in World History and Geography II |
| HUM | 330I | Labor, Literature, and the Arts |
| HUM | 340I | World Native and Indigenous Studies |
| LCC | 220I | U.S. Democracy: Origins and Development |
| LIN | 203I | Introduction to the Deaf World |
| PHI | 310 I | History of Ancient Philosophy |
| PHI | 312I | Women Philosophers from Africa and the Diaspora |
| PHI | 315I | Eastern Philosophy |
| PHI | 320 I | History of Medieval Philosophy |
| PHI | 330I | History of Early Modern Philosophy |
| PHI | 340I | History of Late Modern Philosophy |
| PHI | 350I | American Philosophy |
| PHI | 360I | Existentialism |
| PHI | 370I | Analytic Philosophy |
| PHI | 380I | Postmodernism |
| RSP | 103I | Russell Scholars Seminar: Culture, Community, and the Environment |
| RUS | 102I | Beginning Russian II |
| RUS | 201I | Intermediate Russian I |
| RUS | 202I | Intermediate Russian II |
| RUS | 291I | Russian and Soviet Culture and Civilization |
| SBS | 313 I | What is 'Race'? |
| SPA | 102I | Beginning Spanish II |
| SPA | 107I | Intensive Beginning Spanish and Laboratory |
| SPA | 201I | Intermediate Spanish I |
| SPA | 202I | Intermediate Spanish II |
| SPA | 207I | Intensive Intermediate Spanish |
| SPA | 270I | The Culture and Civilization of Spain |
| WST | 135I/130I | Introduction to Women and Gender Studies |
| Social Sciences |  |  |
| ANT | 101J | Anthropology: The Cultural View |
| ANT | 201J | Human Origins |
| BUS | 165J | Consumer Studies |
| CMS | 102J | Introduction to Communication |
| COM | 130J | Interpersonal Communication Skills |
| COR | 142J | Baseball and American Society: A Journey |
| COR | 152J | Environmental Issues and Choices |
| COR | 161J | Sustainable Lives: 10 Billion People, One Damp Rock |
| CRM | 100J | Criminology |
| ECO | 100J | Introduction to Economics |
| ECO | 101J | Introduction to Macroeconomics |
| ECO | 102J | Introduction to Microeconomics |
| ECO | 104J | The U.S. in the World Economy |
| ESP | 220 J | Environmental Policy: Pollution |
| GEO | 101J | Human Geography |
| GEO | 103J | Human-Environmental Geography |
| GEO | 104J | World Regional Geography |
| GEO | 120J | Geography of Maine |
| GEO | 203J | Urban and Regional Development |
| GEO | 207J | Maps: Knowledge, Technology, Society, Culture |
| HON | 103J | Religious and Scientific Perspectives on Human Origins and the Human Body |


| HRD | 200J | Human Growth and Development |
| :---: | :---: | :---: |
| LAC/ |  |  |
| SBS | 340J | Language Acquisition and Literacy Development |
| LCC | 310J | Science, Technology, and Society |
| LIN | 185J | Language, Mind, and Society |
| LIN | 201J | Child Language |
| LOS | 325J | State and Local Government |
| POS | 101J | Introduction to American Government |
| POS | 102J | People and Politics |
| POS | 104J | Introduction to International Relations |
| PSY | 101J | General Psychology I |
| RSP | 102J | Russell Scholars Seminar: Self and Communication |
| RSP | 305J | Britain: The Interaction of Culture and Politics |
| SBS | 200J | Human Growth and Development |
| SCI | 153J | AIDS: Biology, Social Policy, and the Law |
| SOC | 100J | Introduction to Sociology |
| SWO | 250J | Introduction to Social Welfare |
| Natural Sciences |  |  |
| ANT | 102K | Biological Anthropology (with ANT 102 Lab) |
| AST | 100K | Astronomy |
| AST | 103K | Astronomy: Activities and Experiments |
| BIO | 101K | Biological Foundations |
| BIO | 102K | Biological Experiences |
| BIO | 103K | Introduction to Marine Biology |
| BIO | 104K | Marine Biology Laboratory |
| BIO | 105K | Biological Principles I |
| BIO | 106K | Biological Principles I Laboratory |
| CHY | 101K | Introduction to Chemistry |
| CHY | 102K | Introduction to Laboratory Measurement |
| CHY | 110K | Chemistry, Life, and the Environment |
| CHY | 113K | Principles of Chemistry I |
| CHY | 114K | Laboratory Techniques I |
| ESP | 101K | Fundamentals of Environmental Science |
| ESP | 102K | Fundamentals of Environmental Science Lab |
| ESP | 125K | Introduction to Environmental Ecology |
| ESP | 126K | Introduction to Environmental Ecology Lab |
| GEO | 102K | Physical Geography |
| GEY | 100K | Volcanoes, Earthquakes, and Moving Plates |
| GEY | 101K | Lab Experiences in Geology |
| GEY | 102K | Field Lab in Physical Geology |
| GEY | 103K | Floods, Glaciers, and Changing Climates |
| GEY | 105K | Ocean Planet |
| GEY | 106K | Ocean Planet Laboratory |
| GEY | 109K | Field Geology of Coastal Maine |
| GEY | 110K | Field Studies in Environmental Geology on the Island of Lesbos, Greece |
| HON | 201K | Interdisciplinary Inquiry in the Science of the Human Body |
| $\begin{gathered} \mathrm{LCC} / \\ \mathrm{SCI} \end{gathered}$ | 130K | The Biology of Human Health with Lab |
| $\begin{gathered} \mathrm{LCC} / \\ \mathrm{SCI} \end{gathered}$ | 230K | Environmental Science, Policy, and Sustainability with Lab |
| PHY | 101K | Introduction to Physics |
| PHY | 102K | Introduction to Physics Laboratory |
| PHY | 111K | Elements of Physics I |
| PHY | 114 K | Introductory Physics Laboratory I |
| PHY | 121K | General Physics I |
| SCI | 100K | Natural Science Topics |
| SCI | 170K | Human Anatomy and Physiology I |
| SCI | 171K | Human Anatomy and Physiology I Laboratory |
| SCI | 250K | Applied Physics |


| Writing Intensive |  |  |
| :--- | :--- | :--- |
| BIO | 306 W | Developmental Biology and Lab <br> (concurrent with or subsequent to BIO 305) <br> Microbiology and Lab <br> (concurrent with or subsequent to BIO 311) |
| BIO | 312 W | 353 W |
| BIO | Vertebrate Zoology |  |
| BIO | 405 W | Animal Behavior |
| BIO | 406 | Animal Behavior Lab§ |
| BUS | 303 W | Career Planning and Development |
| CON | 322 W | Health Related Research <br> ECO |
| ENG | $123 \mathrm{~W} / \mathrm{W}$ | Political Economy |
| Introduction to Literature |  |  |
| ENG | $150 \mathrm{H} / \mathrm{W}$ | Topics in Literature |
| ENG | 245 W | Introduction to Literary Studies |
| ESP | 203 W | Environmental Communications |
| ESP | 401 W | Environmental Impact Assessment |
| ESP | 421 W | Natural Resources Policy |
| HON | 102 W | Truths, Lies, and Legacies in a Medieval Mindscape |
| HON | $103 \mathrm{~J} / \mathrm{W}$ | Religious and Scientific Perspectives on Human Origins <br> and the Human Body |
| HON | 311 W | Honors Thesis Workshop |
| HTY | 200 W | Reference Research and Report Writing |
| ITP | 210 W | Technical Writing |
| LCC | $200 \mathrm{E} / \mathrm{W}$ | Creative Critical Inquiry into Modern Life |
| LCC | $370 \mathrm{E} / \mathrm{W}$ | Toward a Global Ethics |
| CMS | 150 W | The Writing Process |
| CMS | 274 W | Writing for the Media |
| PHI | $112 \mathrm{E} / \mathrm{W}$ | Intro to Philosophy: Feminist Perspectives |
| PSY | 371 W | History and Systems and Psychology |
| RSP | 101 W | Russell Scholars: Creative Writing* |
| SOC | $210 \mathrm{E} / \mathrm{W}$ | Critical Thinking About Social Issues |
| WST | 280 W | Women, Knowledge, and Power |

§Must be taken concurrently with BIO 405W
*Available only to Russell Scholars.
*Courses with the COR prefix are interdisciplinary. Prerequisites for all COR courses: English Composition and Skills of Analysis/Philosophy.

## COR 119F The Illuminated Autobiography

An introduction to two creative processes, the visual and the literary. The course will explore the means (shared, specialized, and complementary) by which they communicate thematic content, and the transformation through which subjective discovery becomes accessible form. Students will develop a control of structural elements within and between the two disciplines sufficient to write, illustrate, design, and publish a limited autobiographical narrative.

Cr 3.

## COR 122I Introduction to Islamic Civilization

This is a survey course that focuses on Islam as a universal religion embracing diverse cultural areas representing some 45 nations. The course will deal with Islam from religious-doctrinal, cultural-artistic, and socio-political perspectives. It begins with a historical survey of the rise and spread of Islam as a religion, examines its basic doctrine, beliefs, and institutions, highlights the cultural manifestations of Islam in art and literature, and deals with its impact on sociopolitical thought and action. The course ends with an analysis of the phenomenon of Islamic revivalism and fundamentalism in the context of global recovery of Islamic identity, and ongoing crises and conflicts in the Middle East and the Gulf Area.

Cr 3.

## COR/HUM 135 I United States Studies I

Drawing on political and economic history, literature and the arts, this course will study the diverse people, events, and ideas that helped shape and define the United States from its inception through the latter part of the nineteenth century. Cr 3.

## COR/HUM 136 United States Studies II

This course is a continuation of COR/HUM 135I, covering the period extending from the late nineteenth century up to modern times. Cr 3 .

## COR 142J Baseball and American Society: A Journey

This course studies baseball as an American institution. It combines academic study with a journey: from Portland, Maine, through Cooperstown and the Hall of Fame, to Baltimore's Camden Yards. During the bus journey, participants will talk, study, see films, go to ball games at various levels of play, interview players from the past and executives of the present. Some of the topics will include the history and literature of baseball, the Negro Leagues, and the integration of major league baseball. Cr 3.

## COR 148I Northern Ireland: History, Culture, and Conflict

This course will proceed roughly chronologically from the home rule movements of the late nineteenth century through a series of primary documents that reveal the history, culture, attitudes, and
contradictions of the most contested states in the West. Primary materials will include historical and political analyses, government documents, speeches, sermons, songs, wall murals, popular celebrations, films, plays, stories, and poems. The goal of the course will be to gain a comprehensive and integrated understanding of the strife-torn statelet. The course will include an enhanced writing component and an emphasis on discussion and regular student participation.

Cr 3.

## COR 152J Environmental Issues and Choices

This course focuses on the global environment within the context of geography. Environmental issues constitute one of the central themes of physical and social/cultural/human geography. To understand the environment within a global context, it must be remembered that each culture develops a system of value preferences and orientation. Groups occupying similar geographic habitats or employing similar (or the same) economic systems, but with contrasting value systems, appraise and use the environment differently.

Cr 3.

## COR 161J Sustainable Lives: 10 Billion People, One Damp Rock

This course is an interdisciplinary discussion of what it means to lead more sustainable lives. Students are asked to understand the principles of sustainability, to explore their values, to gain insight into the consequences of continuing population growth and consumer culture, and to make conscious, more environmentally sustainable lifestyle decisions.

Cr 3.

## COR 162I Diversity amidst Globalization

This multidisciplinary course investigates the encounter between forces of convergence (globalization) and the forces of divergence that creates the contemporary world scene. Historical contexts and tensions that have produced differences in the modern world will be discussed. The concept of globalization will be studied as a link between places that reduce differences across geological space. Conversely, globalization can have the effect, in certain circumstances, of reinforcing differences within places. The dynamics of these seemingly conflicting forces form the basis of the course. In addition, the role of the individual in affecting understanding and effecting outcomes in the struggle between globalization and difference will be explored. Cr 3.

## COR 318H Photography and Poetry: Two Ways of Speaking

This course deals with two modes of creative expression, photography and poetry. Its purpose is to help students read intelligently and sensitively both photographs and poems and to assist them in exploring connections between the two types of expression. A more far-reaching goal is to increase student understanding of the relationship between art and reality and of the complex nature of that knowledge provided us by the arts.

Cr 3.

COR 358H Motherhood: Political Institution, Cultural Icon, Defining Experience
This interdisciplinary course examines motherhood from the perspectives of cultural studies and psychology. Consideration of historical and cross-cultural depictions of mothers will elucidate the particular faces and functions of motherhood as they are vari-
ously conceived. Modern psychological theories will be discussed as the means by which cultural demands regarding mothering are currently being prescribed. The manner in which the powers attributed to mothers contribute to the construction of particular policies and practices will also be considered. Cr 3.

## University Honors Program

Director: Rosemary J. Cleary (Social and Behavioral Sciences)
Honors Faculty: Bjelic (Criminology), Briggs (Interdisciplinary Studies), Briggs (Computer Science), Caffentzis (Philosophy), Conway (Philosophy), Gavin (Philosophy), Harrison (Geography-Anthropology), Lualdi (History), Moore (Biology), Sanford (Environmental Science), Schmidt (Political Science), Uzzi (Modern and Classical Languages and Literatures),

The Honors Program is designed for the undergraduate who enjoys challenging coursework in a supportive learning community. Students who enter the program work closely with faculty in seminar-style courses (colloquia) with an average of 15 students per class. Drawing from many disciplines, these courses seek to tap and develop the curiosity, creativity, and motivation of every student. All Honors Program work stresses independent learning, original thinking, and the development of skills in research, writing, and oral expression. Full- or part-time students within any major are eligible and there is no residential requirement, allowing for a dynamic mix of traditional and nontraditional age students.

Honors students also complete a thesis. The student-selected thesis project is advised by a committee of the student's choosing and is the final requirement in the program to graduate with General University Honors.

The Honors Program is more than a series of courses. Students are part of a creative social and intellectual community centered at the Honors House, 102 Bedford Street, on the Portland campus. The Honors House contains three seminar rooms, a student lounge, and the Program's faculty and administrative offices. Students come to the Honors House to attend classes, study, meet with professors, and socialize. The intimacy of this learning community creates a unique sense of support and camaraderie. Speakers, seminars, discussion panels, artistic presentations, and social events are sponsored by the Program throughout the academic year, bringing together faculty, students and staff in a friendly and democratic atmosphere.

Honors Program work is rewarding for highly motivated students, regardless of their academic interests or career plans. It emphasizes the development of independent thinking and communication skills, and as such, it provides an excellent background for students preparing for graduate school or the job market. These skills are also put to use within the Program, as students are encouraged to participate fully in all decisions affecting the Program through the Honors Student Organization and student representatives to the Honors Faculty Council. Most important, the Program develops a love of inquiry and education that stems from, and goes well beyond, the acquisition of specific knowledge.

To graduate with General University Honors, a student must successfully complete the following sequence:

| HON | 101 | Wisdom Stories from Antiquity | (4 credits) |
| :---: | :---: | :---: | :---: |
| HON | 102 | Medieval Mindscape or | (4 credits) |
| HON | 103 | Human Origins and the Human Body | (4 credits) |
| HON | 201K | Sciences of the Human Body | (4 credits) |
| HON | 202 | Progress, Process, or Permanence or | (4 credits) |
| HON | 203 | Environment, Population, Behavior, and Global Change | (4 credits) |
| HON | 301W | Cultural Practices and Ambiguous Identities | (3 credits) |
| HON | 311W | Thesis I (Workshop) | (4 credits) |
| HON | 312 | Thesis II | (4 credits) |
| Honors students may also choose from the following elective Honors cour |  |  |  |
| HON | 100C | Thinking and Writing in Honors | (4 credits) |
| HON | 105D | Calculating and Reasoning with Symbolic Representations | (4 credits) |
| HON | 321 | Honors Directed Research | (1-3 credits) |
| HON | 331 | Honors Directed Study | (1-3 credits) |
| Courses taken in the Honors Program may not be taken on a pass-fail basis. |  |  |  |

## Core Curriculum Requirements

Admission to the Honors Program

Successful completion of the Honors Colloquia (HON 101, HON 102 or HON 103 , HON 201K, and HON 202 or HON 203) will satisfy the following Core curriculum requirements: Skills of Analysis/Philosophy (E), History-centered Fine Arts (G), Humanities Literature (H), Other Times/Other Cultures (I), and Natural Sciences (K). Students who do not successfully complete all the Honors Colloquia should consult with the director concerning the use of Honors Colloquia to satisfy Core curriculum requirements. Additionally, completion of HON 100, Thinking and Writing in Honors, will satisfy the English Composition (Area C) of the Core requirements; HON 103 will satisfy half of the Social Science (Area J) requirement; HON 105 will satisfy the Quantitative Reasoning (Area D); HON 201 will satisfy the Natural Sciences (Area K) requirement. The Writing Intensive (W) requirement can be satisfied by completion of either HON 102, HON 103, HON 301, or HON 311.

Standards The Honors Program is designed for highly motivated, intellectually curious students who would benefit from working closely with faculty in a challenging and enriched course of study, and admission to the Honors Program is based on criteria designed to identify such students. Many factors are considered: the applicant's overall academic record; SAT and other test scores; extracurricular activities; recommendations; work experience; and, in some cases, an application essay. The Honors Program seeks a diverse group of students to provide a stimulating environment for all participants.

Application Procedures and Deadlines Students newly admitted to USM who either graduate in the top $10 \%$ of their high school class, have a minimum 3.25 GPA , and/or have a combined 1050SAT/ 22ACT - as well as qualified students who are not recent high school graduates-will be offered admission into the Honors Program. Other students interested in applying for admission to the Program should write or call University Honors Program, University of Southern Maine, 96 Falmouth St., P.O. Box 9300, Portland, Maine 04104-9300, (207) 780-4330, or visit our Web site at www.usm.maine.edu/honors, for an Honors application form. To be considered for September admission, a completed application should be received at the Honors House by March 1. Later applications will be considered on a spaceavailable basis. Applicants are notified of admissions decisions as soon as they are made or, generally, by May 1 .

To remain in the Honors Program, a student must maintain a minimum class standing within the University as well as within Honors courses. These two standards of progress, Overall Class Standing and Successful Completion of Honors Courses, are in addition to those set forth by the University.

Overall Class Standing To continue to remain in the Honors Program, students must maintain an overall grade point average according to the number of USM credits accomplished. The minimum GPA and credit hours are as follows:

| Earned Credit Hours | For Good Standing |
| :---: | :---: |
| $1-22$ | 2.5 |
| $23-52$ | 3.0 |
| $53-82$ | 3.25 |
| $83+$ | 3.4 |

These standards take effect when students begin the Honors Program. Students beginning the program with lower GPAs than required for good standing will be required to meet with the program director in their first semester of study to develop an academic plan to achieve good standing.

Successful Completion of Honors Courses In addition to maintaining an overall minimum grade point average, Honors Program students must successfully complete Honors courses. These minimum grades serve as additional prerequisites for any subsequent Honors courses. The following minimum course grades have been established for program participants, recognizing the demanding nature of the Honors Program:

Course
HON 100C, HON 101
HON 102, HON 103, HON 301W
HON 201K, HON 202, HON 203
Minimum Grade Required
C+
B-
B

In the event that an Honors student fails to meet these standards of progress, at the Honors Program director's discretion, the student may be placed on probation with the Honors Program and required to meet with the director to work out a plan

## Graduating with <br> General University <br> Honors

to achieve the minimum GPA and grades required for good standing. Students not able to achieve the minimum GPA and grades within the time frame agreed upon in the plan, who do not meet with the director to develop a plan, or who, after achieving good standing after probation again do not meet minimum standards, may be dismissed from the Honors Program.

Honors students who successfully complete all required Honors courses (HON 101, HON 102 or HON 103, HON 201K, HON 202 or HON 203, HON 301W, HON 311W, and HON 312) and have attained a 3.4 grade point average in all University work including Honors courses, will graduate with General University Honors. General University Honors designations are in addition to cum laude, magna cum laude, and summa cum laude, which are awarded solely on the basis of cumulative grade point average (see Graduation Honors Policy in the Academic Policies section of this catalog).

## HON 100C Thinking and Writing in Honors

This course combines the basic mechanics of a college writing course with an introduction to text analysis and critical thinking. It is specifically designed to provide skills that will be used in all the Honors courses. It is highly recommended for all entering Honors students.

Cr 4 .

## HON 101I Wisdom Stories from Antiquity

The ancient cultures of the Mediterranean and Middle East are traditionally understood as roots of Western civilization. In this course students explore ancient philosophical, literary, political, and social traditions while critically reflecting upon the impact of those traditions as they influence cultures we identify as "our own."

Cr 4.

## HON 102I/W Truth(s), Lie(s), and Legacy(s) in a Medieval Mindscape

This course will explore the functions of religion in human society including the creation of community and the creation of outsiders with special emphasis on the medieval period.

Cr 4.

## HON 103J/W Religious and Scientific Perspectives on Human Origins and the Human Body

In this course, students will examine a range of culturally based accounts of human origins (creation stories), considering evidence for these accounts from the perspective of both cultural and scientific studies. Seminars prepare students to assess the influence of social and historical context as these mediate our understanding of the human body and its origins. An integrated strand of weekly applied/laboratory sessions will accompany these seminars, providing students the opportunity to apply various methods of scientific and social scientific inquiry. The course also makes explicit contemporary and historical controversies about the origin of the human body and asks students to examine critically the consequences of these capacious civic debates.

Cr 4.

## HON 105D Calculating and Reasoning with Symbolic Representations

This course is about power of abstract, visual, primarily symbolic, representations of phenomena. These representations include quantities representing counts or measurements, predicate calculus representations of natural language assertions, graphical(in both the vertex and edge sense and the Cartesian coordinate sense) of structures and relationships, and other visual presentations of information.

Cr. 4

## HON 201K Interdisciplinary Inquiry in the Sciences of the Human Body

This course provides an interdisciplinary introduction to scientific discourses and scientific practices concerning the human body. It combines selected concepts and methods of inquiry from several disciplines, including molecular biology, human genetics, anatomy, biological anthropology, human ecology,
and the history of medicine. Students and faculty will critically examine the history of various constitutive practices and scientific representations of the body, including many Western scientific conceptions of the body as these have emerged from the European Renaissance through modernity. An integrated sequence of weekly laboratory/practicum sessions will accompany these seminars, providing students the opportunity to apply various methods of scientific inquiry from disciplines that address the human body. These explorations are synthesized by students in an independent research project. This project provides an opportunity for student to address their own embodiment in the context of a capacious civic question (e.g., the human genome project, environmental toxicity, viral epidemics, genetic therapy, etc.). Cr 4.

## HON 202H Progress, Process, or Permanence: All That is Solid Melts into Air

"All that is solid melts into air" (Karl Marx) is an apt metaphor for this course, which examines concepts of certainty and uncertainty from various 19th- and 20th-century perspectives. Who has the answers? Are there any answers? Can there be such a thing as "progress," and does our "modern" perspective (whatever that is) give us a unique point of view for addressing these issues?

Cr 4.

## HON 203 Environment, Population, Behavior, and Global Change

This course explores the ways in which environment, population, and behaviors converge in the dynamics of various contemporary global changes and challenges. Interdisciplinary study is a central characteristic of this course. Students integrate literary, artistic, social, scientific, historical, applied or practice-based approaches in cultural analysis of global changes and challenges. The course is inquiry-based, providing students an opportunity to pose their own questions for research in a format that prepares them for thesis research and writing. Following a series of readings and self-directed inquiries, each student synthesizes their learning in a final project.

Cr 4 .

## HON 299 Honors Seminar

A different seminar on a topic of contemporary debate will be offered at least once a year. The seminars will normally focus on issues involving multicultural perspectives.

Cr 3.

## HON 301W Ambiguous Identities and Cultural Practices

This course examines cultural performance across a broad range of social, disciplinary, and professional practices. It provides an opportunity for students to engage theoretical and practical articulations, by encouraging them to develop skills of critical assessment of cultural phenomenon. Students focus on a context specific "turning point"-an existential crisis, a professional, cultural or political rupture, or some other liminal phase of experience, especially those characterized by injustice, prejudice, or
stereotyping. The subject area of students' exploration may be chosen from topics in disciplinary or interdisciplinary fields of investigation, from social or professional interest, or from current or past experience.

## HON 311W Honors Thesis I: Workshop

Each Honors student will plan and carry out a major thesis project as the final stage of Honors work. This workshop course will acquaint students with research proposal development for the project and assist them in the design and evaluation of project outlines. It will involve both group meetings and individual work with the student's project mentors. Cr 4.

## HON 312 Honors Thesis II

This course will consist largely of independent research and writing, with assistance from the project
mentors, carrying on the preliminary work done in Thesis I. The project will be completed, and the oral defense scheduled, at the end of the course. Cr 4.

## HON 321 Honors Directed Research

This optional course allows an Honors student with interests in a particular subject area to do research in that area under the direction of a faculty supervisor. The research may be carried out in any subject area, with the approval of the director.

Cr 1-3.

## HON 331 Honors Directed Study

This optional course allows an Honors student to design a reading course in collaboration with a faculty supervisor. It is of particular value to students with self-designed majors who may need to supplement existing courses with additional material. Approval of the director is required. $\mathrm{Cr} 1-3$.

# Russell Scholars Program 

Director: Stephen J. Romanoff (Humanities), 103 Woodward, Gorham Associate Director: Elizabeth K. Dodge (Basic Studies)
Russell Scholars Faculty: Dodge (Basic Studies), Kilroy (Theatre), Novak (Geology), Tizon (Geography-Anthropology), Wooten (Basic Studies)

The Russell Scholars Program (RSP) is a residential, undergraduate learning community of highly motivated students and faculty dedicated to the achievement of educational goals through collaborative learning, out-of-class activities, and community service. The Russell Scholars Program is designed for average-to-excellent students who wish to pursue their studies in a small learning community, and who wish to receive regular coaching in the mastery of critical thinking. Russell Scholars will develop a commitment to learning and community service, an ability to transfer competence, an intercultural knowledge, a personal and ethical integrity, and an ability to work as part of a team. Approximately 50 first- and second-year students from all majors are admitted to the Russell Scholars each year and work with their individual RSP faculty mentors.

Extensive co-curricular and social activities enrich the learning community experience. All Russell Scholars are encouraged to have optional out-of-state or out-ofcountry learning experiences for which they receive full academic credit. First-year Russell Scholars are required to reside at Woodward Hall, a remodeled residence hall located on the Gorham campus. Here students can study, socialize, attend seminars, concerts, and readings, and meet with mentors. There are frequent opportunities for Russell Scholars, their faculty members, and guests to discuss ideas and issues in a relaxed social setting. Special events in the arts, sciences, and humanities are produced by Russell Scholars and are made available to the entire community.

To graduate as a Russell Scholar, a student must successfully complete two writing courses or equivalents, three RSP seminars, and six credits of Learning Community Labs, the final lab to be taken during the senior's spring semester. Students who are not taking RSP Lab who wish to earn service-learning credit must register for RSP 400 Independent Study with the instructor's permission. Students planning to graduate as Russell Scholars are required to take RSP 110, RSP 111, RSP 210 or 211 , RSP 310 or 311 , and RSP 411.

| RSP | 100C | College Writing | (3 credits) |
| :---: | :---: | :---: | :---: |
| RSP | 101W | Russell Scholars Creative Writing | (3 credits) |
| RSP | 102J | Seminar: Community and Identity | (3 credits) |
| RSP/EYE | 103I | Seminar: Culture, Comm. \& Environ | (3 credits) |
| RSP | 104C | Enriched College Writing | (4 credits) |
| RSP | 110 | Learning Community Laboratory | (1 credit) |
| RSP | 111 | Learning Community Laboratory | (1 credit) |
| RSP | 210 | Learning Community Laboratory | (1-2 credits) |
| RSP | 211 | Learning Community Laboratory | (1-2 credits) |
| RSP | 250H | Seminar: Songs and Society | (3 credits) |
| RSP | 340 | Global Campus | Variable credit |
| RSP | 310 | Learning Community Laboratory | (1-2 credits) |
| RSP | 311 | Learning Community Laboratory | (1-2 credits) |
| RSP | 400 | RSP Independent Study | (1-3 credits) |
| RSP | 401 | Community Service Internship | Variable credit |
| RSP | 402 | Russell Scholars Capstone Seminar | (3 credits) |
| RSP | 410 | Learning Community Laboratory | (1-2 credits) |
| RSP | 411 | Learning Community Laboratory | (1-2 credits) |

## Core Curriculum Requirements

## Departmental Major

Many Russell Scholars courses will satisfy the USM Core/General Education requirements. Students should consult with their mentor concerning the use of additional Russell Scholars courses to satisfy additional Core curriculum requirements.

Russell Scholars courses are not intended to be counted toward the number of credits that departments require for graduation as a major. Students enrolled in the Russell Scholars Program should consult with their departmental advisors concerning the use of Russell Scholars courses to satisfy departmental major requirements.

Admission to the Russell Scholars<br>Program

Any full-time, residential student in good academic standing is eligible to apply to be a Russell Scholar. Criteria for admission include: completion of application to the program, and an interview with a member of the Russell Scholars faculty.

Students interested in the Russell Scholars Program must complete an application separate from the application to the University. Those with questions about the Russell Scholars Program may call or write The Russell Scholars Program, University of Southern Maine, Woodward Hall, 37 College Avenue, Gorham, Maine 04038, (207) 780-5752 or 5751. Application materials will be forwarded upon request. Upon receipt of a completed application, students will be contacted for an interview, which may take place in person or by telephone. Applications are acted upon as they are received; hence, they should be submitted as early as possible.

To remain in the Russell Scholars Program a student must remain in good standing with the University and demonstrate a genuine desire to remain in the program.

## RSP 100C College Writing

This course introduces students to the style and standard of writing expected of them in college. Students read expository writings grouped around a theme and use the ideas they encounter to develop and refine analytical essays in response. Emphasis is placed on building the skills of critical analysis and the writing process, specifically reading, drafting, rereading, revision, editing, and proofreading. Students are encouraged to integrate ideas from RSP Seminar into class discussions and individual essays, when appropriate. At the end of the semester, an RSP 100C student will be able to engage with complex readings and compose analytical essays that focus on a central theme using language that is relatively free of sentence-level error. Prerequisite: college readiness in writing. Fall semester. Cr 3.

## RSP 101W Russell Scholars Creative Writing

This course is offered as a continuation of RSP 100C to help students define and meet their writing goals. Classes meet once a week, and include individual conferences. Creative Writing emphasizes style, organization, and development, with some emphasis on mechanics. Students must exercise the self-discipline necessary to work independently. Cr 3.

## RSP 102J Russell Scholars Seminar: Self and Communication

This seminar will explore the process of self-discovery, building a foundation of self-knowledge, maintaining self-esteem, and communicating this inner self and personal vision to others in everyday life. It will examine issues ranging from the classic view of knowing one's self to practical concerns of effective interpersonal interactions. This seminar addresses several areas, including sociology, psychology, communication, and human growth and development. Due to the interdisciplinary nature of this course, it will be important to draw upon several sources which are written from a variety of disciplinary vantage points.

Cr 3.

## RSP 103I Russell Scholars Seminar: Culture, Community, and the Environment

All first-year Russell Scholars and transfer students are required to take this course. This course will utilize scientific and humanistic anthropological theories and understandings to explore contemporary issues and dilemmas concerning the environment. It will consider values and approaches of different cultures in order to better understand the current problems of environmental damage and pollution, population growth, lifestyle impacts on ecology, ethnic conflict, and other threats to cultural survival and ecological balance. The seminar will attempt to analyze contemporary problems locally and globally, and to explore possible resolutions to these problems. An example of cultural types will be examined, including forager, agriculturalists, and industrial nation-states, in terms of their relationship with and values about the environment.

Cr 3.

## RSP 104C Enriched College Writing

This college writing course provides additional support to students as they are being introduced to the style and standard of writing expected of them in college. Through additional classroom time, discussion, and small-group work, students further practice the skills of critical analysis; the writing process, specifically reading, drafting, rereading, revision, editing, and proofreading; and correct grammar and usage. The course is designed for students who have not met the University's measure of college readiness in writing and for any student interested in extra structure and support for success in the writing of college essays. Students are encouraged to integrate ideas from RSP Seminar into class discussion and individual essays, when appropriate. At the end of the course, an RSP 104C student will be able to engage with complex readings and compose analytical essays that focus on a central thesis using language that is relatively free of sentence-level error. Fall semester.

Cr 3.

## RSP 110 Russell Scholars Learning Community

 LaboratoryThis forum for all Russell Scholars will convene biweekly in an informal environment to address topics such as campus issues, current events, and student interests. Russell Scholars Lab also takes students out of the classroom atmosphere by integrating field trips to enhance the learning experience. Cr 1.

## RSP 111 Russell Scholars Learning Community Laboratory <br> RSP 111 is a continuation of RSP $110 . \quad \mathrm{Cr} 1$.

## RSP 175F Oral Interpretation

A course in the assimilation and analysis of literary material (poetry, prose, drama) with emphasis on the techniques used in reading written material aloud to an audience. Designed to stimulate an understanding and responsiveness to literature and to develop the ability to convey to others, through oral reading, an appreciation of that literature. Prerequisite: 24 or more credits earned. Cr 1.

## RSP 210 Russell Scholars Learning Community

 LaboratoryRSP 210 is a continuation of RSP 111 . Cr 1.

## RSP 211 Russell Scholars Learning Community Laboratory

RSP 211 is a continuation of RSP 210 . Cr 1.

## RSP 250H Russell Scholars Seminar: Songs and

 SocietyThis is an interdisciplinary, literature-based course focusing on the role of songs in world cultures. It is designed to introduce students to the influence that songs have upon societies, and likewise, the influence of societies upon the creation and use of songs. Like most art forms, songs are reflections of the prevailing values of a given society at any given time in history. The course examines songs as vehicles to motivate
and mobilize people, to help them escape from drudgery, to worship, to express politicial sentiment, to approve or to protest, to celebrate, and to entertain. Students identify and analyze the range of song genres from martial songs and anthems to love songs, lullabies, and protest songs. The course traces the evolution of the traditional story-song from the epic ballads to its present incarnation as both high and pop culture. Students will also explore songwriting as both an art form and as a business driven by societies' unquenchable appetite for songs, both old and new. Prerequisite: 24 credits or permission of instructor.

Cr 3 .

## RSP 300H Russell Scholars Seminar: England and the Humanities

This course is designed to explore the interrelationships between the arts and humanities of the British Isles. The humanities comprise those areas of study that are literally the creation of human beings, as distinguished from science and its systematic revelation of the patterns of nature. Subsequently, this course will include, but will not be limited to, the roles played by literature, history, ethics, social science, religion, the fine arts, and folk arts in shaping British culture.

Cr 3 .

## RSP 305J Britain: The Interactions of Politics and Culture

This course is specifically designed for Americans studying in England and introduces students to the economic, political, and psychological environment and cultural lifestyle of contemporary Britain. Common use of "English" language in both the United States and Britain often conceals essential differences that exist in culture and in attitudes. These differences will be identified and explored through the study of a variety of topics both in the classroom setting and outside. Students will be encouraged to focus their own observations in order to deepen and broaden their understanding of Britain, its inhabitants, its politics, and its culture, and to do so in a way that will enable them to reflect more fully upon their own country, politics, culture, and way of life. Cr 3 .

## RSP 310 Russell Scholars Learning Community Laboratory <br> RSP 310 is a continuation of RSP 211 . Cr 1.

## RSP 311 Russell Scholars Learning Community Laboratory <br> RSP 311 is a continuation of RSP 310 . Cr 1.

## RSP 340 Cultural Landscape of Greece

Students will be introduced to the multi-faceted nature of this intriguing country. Greece, the birthplace of our western civilization, is a modern, emerging European nation and is already a major tourist destination. Students will travel to the bustling capital of Athens for three days, but spend most of their time on the quieter island of Lesvos. Here they will live in the small city of Mytilene
(now a Sister City with Portland, Maine); gather to share meals in a seaside or city café; take field trips to villages, ancient sites, museums, and beaches; learn about the physical and societal framework of the culture; and attend lectures on human geography, geology, cultural traditions, current forces of change, impact of tourism, environmental issues, and regional politics.

Cr 3 .

## RSP 345/GEY 110K Russell Scholars Global Campus

This course takes place at any one of several international sites. It offers Russell Scholars students an opportunity to travel while experiencing the rich cultural differences of our diverse world. An example of a course is one held at Wroxton College in England during Winter Session. It examines British culture, government, economy, and literature. Students attend a performance by the Royal Shakespeare Company in Stratford-on-Avon, spend a weekend in London, and take several other side trips. Another example of this course takes students to Greece. Students will be introduced to the multifacted nature of this intriguing country. Although ancient Greece is the birthplace of our western civilization, Greece today is also a modern, emerging European nation. Students will travel to the bustling capital of Athens for a few days, but spend most of their time on the quieter island of Lesvos. Here they will live in the small city of Mytilene (now a sister city with Portland, Maine) where they will be near markets, shops, and cafes. Daily they will gather to share meals in their pensione, or in seaside or city cafés; and take field trips to villages, ancient sites, archeological and art museums, and beaches. Cr 6 .

## RSP 402 Russell Scholars Capstone Seminar: Community and Commitment

This capstone seminar will bring together the framework, principles, and experiences of four years in the Russell Scholars Program to prepare graduating seniors to become lifelong learners with a commitment to the common good. Drawing upon the lessons of identity and community, and other themes of the program, this classroom and field-based seminar will explore such questions as: What is the common good? How can we be at home in the world? How can we live within and beyond the tribe? What is our responsibility in the world? What does citizenship in the 21 st century mean? How do we develop critical habits of mind? This seminar will include a significant service-learning field experience in a community setting.

Cr 3.

## RSP 410 Russell Scholars Learning Community Lab <br> RSP 410 is a continuation of RSP 311 . Cr 1.

RSP 411 Russell Scholars Learning Community Lab
RSP 411 is a continuation of RSP 410 . Cr 1.

# Women and Gender Studies 

Director: Susan Feiner, 94 Bedford St., Portland<br>Women and Gender Studies Council: Professors: Cameron, Chapkis, Deprez, Feiner, Gish, Messerschmidt, Raimon, Rosenthal, Savage; Associate Professors: Carey, Carroll, Cole, Eagan, Fineran, Holden, Kent, Kuenz, Laz, Lockridge, Marya, Thompson, Walker, Wininger.

The women and gender studies major offers students the opportunity to study the lives, words, and ideas of women from various historical periods, as well as feminist theoretical approaches to various contemporary disciplines. Women and gender studies courses focus both on recovering women's lost or neglected pasts and on analyzing and re-thinking contemporary societies. Although women are central to the subject matter of women's studies courses, feminist analysis goes beyond specific issues of gender to challenge our traditional assumptions and histories.

The women and gender studies major introduces students to new ways of thinking about topics related to the field. Courses focus on a variety of issues and may include the gendered construction of science, the effects of gender-biased language, inequities in work and pay, the psycho-social development of women, the philosophy of Simone de Beauvoir, the politics of Angela Davis, and the construction of race, sexuality, and gender in contemporary films. In addition to gaining a broad, integrated vision of society and culture, women and gender studies students develop skills in analysis, critical thinking, writing, and the practical application of theoretical understanding.

The program offers a major leading to a bachelor of arts degree in women and gender studies. Students may also minor in women and gender studies. Graduates with a major in women and gender studies are prepared for graduate and professional schools in a variety of disciplines. They are also prepared for careers in the social sciences, affirmative action and equal employment programs, education, personnel or career advising, women's agencies and programs, human services agencies, and public service.

## Programs and <br> Requirements

## Bachelor of Arts

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 42 .

The women and gender studies major consists of 24 hours of required courses and 18 hours of women and gender studies related courses as follows:

Required Courses (18 hours)
Either of the following ( 3 hours)
WST 130I Introduction to Women and Gender Studies
EYE 109 Gender, Representation, and Resistance
All of the following
WST 280W Women, Knowledge, and Power
WST 380 Politics of Difference
WST 390 Contemporary Feminist Theories
WST 490 Capstone Experience in Women and Gender Studies
One Topics Course from TWO of the following subject areas ( 6 hours)
WST 235/335/435 Topics in Gender and Science, Technology, and Health I/II/III
WST 245/345/445 Topics in Women, Culture, and the Arts I/II/III
WST 255/355/455 Topics in Women, History, and Resistance I/II/III
WST 265/365/465 Topics in Women, Gender, and Institutions I/II/III
Either of the following (4-6 hours)
WST 485 Internship
WST 486 Thesis
Women and Gender Studies Related Courses: (at least 18 hours)
Students must take one course focusing on periods before 1800 and one course dealing with cultures not in the Western mainstream. Students may take no more than three electives from one department or program. Any WST course may be used for elective credit; courses eligible for elective credit are listed at the end of this section.

## Minor in Women and Gender Studies

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 18 .

The women and gender studies minor consists of a minimum of 9 hours of required courses and 9 hours of related courses as follows:

## Either of the following ( $\mathbf{3}$ hours)

WST 130I Introduction to Women and Gender Studies
EYE 109 Gender, Representation, and Resistance
And the following (3 hours)
WST 280W Women, Knowledge, and Power
Either of the following ( 3 hours)
WST $380 \quad$ Politics of Difference
WST 390 Contemporary Feminist Theories
Women and Gender Studies Related Courses (at least 9 hours. Two of the courses must be at the 300 -level or above)

## Prerequisites and Grade Policy

There are prerequisites for many of the women and gener studies courses. See departmental course listings for specific information. A minimum grade of C or better is required in major/minor courses. Courses taken pass/fail are not acceptable.

## Curriculum Summary and Guide

The women and gender studies curriculum is built upon a shared commitment to the principles of educational excellence and educational opportunity. It is structured to ensure that students are exposed to the sophisticated body of knowledge that now defines women and gender studies as a discipline, while allowing students the opportunity to develop skills in research, writing, and analysis. Consequently, there are prerequisites for upper-division courses. The first-year student is encouraged to complete Core curriculum requirements, including Introduction to Women and Gender Studies (WST 130I or EYE 109) and College Writing (ENG 100C). In the second year, students should take Women, Knowledge, and Power (WST 280W), followed by Contemporary Feminist Theories (WST 390) and Politics of Difference (WST 380). Students who minor in another discipline should also begin the suggested sequence in that year. Third-year schedules should include at least two women and gender studies-sponsored topics courses, drawn from two of our four subject areas. Thus a student might take WST 335 Topics in Gender \& Science, Technology, \& Health I, in the fall, and WST 465 Topics in Women, Gender, and Institutions III, in the spring. Fourth-year students are required to take the Capstone Experience in Women and Gender Studies (WST 490) and select either the internship or thesis option. These courses offer advanced experience in feminist theories, research, and practice, while allowing students to pursue their own interests under careful guidance. Students should be aware that while any course offered under these "topics" will address the general goal outlined in the catalog, the specific content of the topics courses will change from semester to semester. Course descriptions will therefore be published and distributed during the preregistration period.

## Declaration of Major

To declare a major in women and gender studies, the student must have:

- completed a minimum of 30 approved University credit hours of which at least 15 credit hours must be completed at USM;
- completed WST 130I or EYE 109 and ENG 100C with a grade of C or better.

To graduate from this program, the student must have:

- completed 42 hours of required coursework, as described above;
- attained a cumulative GPA of B- (2.67) in all major courses.

Students who wish to graduate with honors in this major must:

- maintain a GPA of 3.33 or better in all major courses;
- have demonstrated superior work in the thesis or internship;
- be recommended by a faculty member who teaches courses within the program; and
- be approved by the Women and Gender Studies Council.


## WST 100 Lab: Gender, Representation, and

## Resistance

This course complements the interdisciplinary curriculum of Introduction to Women and Gender Studies and provides students an opportunity to participate in a wide array of women and gender stud-ies-related cultural, community, and educational activities. These learning experiences foster community, permit students to earn 1 credit while exploring women and gender studies, and support students seeking to develop their writing skills. Cr 1.

## WST 130I Introduction to Women and Gender Studies

This course explores from a variety of perspectives the following inter-related themes and topics: the economic, political, and social status of women as a group and in discrete cultural contexts; the politics of representation, or how ideas about femininity and feminism are promoted throughout the media and other vehicles of culture; the construction of "consciousness," both through the media and through feminist tactics; women and collective action in the past, present, and future. This course is writingintensive; students are expected to practice their writing skills through formal essays. Offered every semester.

Cr 3.

## WST 220 Topics in Women and Gender Studies

Topic areas not already covered by regular course offerings will be offered. The course may be repeated for credit when different topics are offered. Cr 3.

## WST 235, 335, 435 Topics in Gender \& Science, Technology, and Health I, II, III

Courses in this category will include a critique of traditional science, technology, and medicine; representation of feminist possibilities and communities at work on issues of knowledge, health, and power; reconstructions of science, technology, and health care based on new theories and practices. Each of these courses will ask similar questions: How have scientific thinking and gendered technologies affected bodily experience? Is science fiction coming to pass in new reproductive technologies and genetic projects? How has science's view of the female and feminine been problematized by reading works of fiction? Can feminists escape the difficulties of writing about or prescribing for others? Does science create racial as well as sexual subjects? How can it be used (to quote bell hooks) to "talk race and fight racism"? Prerequisite: WST 435 requires permission of the instructor.

Cr 3 .

## WST 245, 345, 445 Topics in Women, Culture, and the Arts I, II, III

Courses in this category will examine some aspect of women's relationships to specific vehicles of "culture," including the plastic, literary, and performing arts. They may focus on women as producers of culture; on how women and femininity have been represented in written, visual, or oral texts; or on feminism and cultural or aesthetic theory. Possible sub-
jects may include feminist philosophy, feminism and film theory, women and the history of music, women and popular culture. Prerequisite: WST 445 requires permission of the instructor.

Cr 3.

## WST 255, 355, 455 Topics in Women, History, and Resistance I, II, III

Courses in this category will explore the political worlds of women in general, and laboring women in particular, which have often been obscured by traditional histories that narrowly define politics as a set of formal institutions and practices. These courses explore forms of female activism located not only in governments, political parties, and unions but also in female collaborative activities and grassroots organization. Emphasis will be placed on the relationship between female activism and social, economic, and cultural change. Topics include women in Third World struggles for national liberation; working class women in contemporary and historical movements; struggles for equal rights; the 19thcentury women's movement; women in peasant revolts; everyday forms of female resistance; union organizing; women and the politics of identity. Prerequisite: WST 455 requires permission of the instructor.

Cr 3.

## WST 265, 365, 465 Topics in Women, Gender, and Institutions I, II, III

Courses in this category will focus on gender relations and the construction of the category "women" in the context of social structures and institutions. Both social structures and institutions are based on and reinforce assumptions about sex and gender, women and men, and masculinity and femininity. And both ultimately shape the experiences of women and men in society. These courses will examine the experiences of women and men as gendered beings and the way those experiences follow from, perpetuate, and/or alter institutions. The emphasis may be on industrial or non-industrial societies and institutions, for analysis will vary. Possibilities include law and legal institutions, economic institutions, subsistence strategies in nonindustrial societies, systems of stratification, conceptual systems, and education. Prerequisite: WST 465 requires permission of the instructor. Cr 3 .

## WST 280W Women, Knowledge, and Power

This course examines the ways in which the politics of knowledge production shape our culture and its gender relations. It explores both the role of educational institutions as they function to promote antifeminist culture and the ways women have historically resisted, subverted, appropriated, and reformed traditional bodies of thought. Attention will be given to how competition, intimidation, and other factors can inhibit the formation of feminist communities of scholars/learners. Students will practice and be encouraged to appreciate the benefits of different modes of interpretation and writing, including personal narrative, socio-historical work, and contemporary cultural analysis. Prerequisites:

WST 130I EYE 109 or permission of instructor. Offered spring semester.

Cr 3.

## WST 320 Advanced Topics in Women and Gender Studies

Advanced topic areas not already covered by regular course offerings will be offered. The course may be repeated for credit when different topics are offered.

Cr 3.

## WST 380 The Politics of Difference

This course will introduce students to some of the complex relationships among the histories and goals of Western feminism and those of specific nondominant cultures, inside or outside the United States. Central to the course are the ways that "differences" are embedded and enacted in the context of power relations in the larger society. While the specific content of this course is flexible, it will treat the advantages and disadvantages of using gender, race, ethnicity, class, and sexuality as categories of analysis. Assignments should reinforce those skills learned in WST 280. Prerequisites: WST 280 or permission of instructor. Offered fall semester. Cr 3.

## WST 390 Contemporary Feminist Theories

This course will introduce students to the efforts of many academic feminists to organize, appropriate, and/or subvert what is sometimes termed "poststructuralist" thought, an enormous body of knowledge that, although generated largely in France, Italy, Great Britain, and North America, has often affected non-Western feminisms as well. The focus of this course will vary, depending on the instructor, but it should be based on the intimate relationships between feminist theories and feminist practice. At least one section of this course will be devoted to focused political analysis of a single subject: pornography, free speech and censorship, reproductive technologies, sexual harassment, pay equity, domestic violence, etc. Students will be asked to write a theoretically informed research paper on a topic of their own choosing. Prerequisites: WST

280W or permission of instructor. Offered spring semester. Cr 3 .

## WST 470 Independent Study

This course provides junior and senior students with the opportunity to pursue a project independently, concentrate on a particular subject of concern, or conduct individually arranged reading or research studies under the advice and direction of a faculty member. Prerequisites: advanced standing and permission of the instructor.

Cr 6.

## WST 485 Internship

The internship requires students to work closely with a group, business, or organization for one semester. Students will write a 20 -page paper on their experience and report to the Women and Gender Studies Council in the spring semester. Prerequisites: senior standing and women and gender studiesmajor or minor. Offered spring semester. Cr 4-6.

## WST 486 Thesis

The thesis allows students to pursue guided research on a topic of their choosing. Thesis students should choose three readers, including an advisor whose interests and scholarship are in line with their own. The minimum length for a thesis is 30 pages, and should include a substantial bibliography. Students will report to the Women and Gender Studies Council in the spring semester. Prerequisites: senior standing and women and gender studies major or minor. Cr 4.

## WST 490 Capstone Experience in Women and Gender Studies

All majors are required to select a capstone experience, with the guidance of their advisor, from the following two options: WST 485 or WST 486. Students enrolled in either option are required to participate in a bi-weekly seminar. Students are expected to co-enroll in WST 490 and WST 485 or 486. Offered in the spring semester only. Cr 2.

| Related Courses |  |  |
| :--- | :--- | :--- |
| ANT | 232 I | Anthropology of Sex and Gender |
| ARH | 311 | Gender Identity and Modern Art |
| CMS | 486 | Women in Film |
| CRM | 317 | Gender and Crime |
| ECO | 322 | Economics of Women and Work |
| ENG | 344 | Sex/Gender and Sexuality |
| ENG | 345 | Racial Formations |
| ENG | 353 | Medieval Women Writers |
| ENG | 379 | Earlier Women Writers |
| ENG | 387 | Women Writers since 1900 |
| GEO | 302 | Gender, Work, and Space |
| HRDX | 545 | Gender and Learning |
| HTY | 339 | European Women's History |
| HTY | 341 | Black Women in the Americas |
| HTY | 364 | History of Women in the United States |
| HTY | 394 | Modern China: Women, Culture, and Revolution |
| HTY | 394 | Homosexuals and Heterosexuals in History |
| HTY | 394 | History of Women in 20th Century America |


| HTY | 394 | History of Women in Maine |
| :---: | :---: | :---: |
| HTY | 394 | History of Women in Latin America |
| HTY | 394 | Pioneer Women in America West: Myth and Reality |
| HTY | 394 | Sexuality, Disease, Difference: 17th-20th Century |
| HTY | 394 | American Women's Lives: 20th Century |
| HTY | 394 | European Women's History |
| HTY | 394 | Russian Women's History |
| HTY | 394 | Caribbean Women: Barbados and Jamaica |
| HUM | 251H | Masculinities in U.S. Literature and Culture |
| HUM | 342 | Contemporary Women of Color in Fiction |
| HUM /SBS | 358H | Motherhood: Political Institution, Cultural Icon, Defining Experience |
| HUM | 389 | Sexuality in Literature and Film |
| PHI | 110 E | Sex, Gender, and Society |
| PHI | 112E | Introduction to Philosophy: Feminist Perspectives |
| PHI | 265 | Philosophy and Gender |
| PHI | 312I | Women Philosophers from Africa and the Diaspora |
| RUS | 281H | Russian Literature in Translation: Women Writers |
| SBS | 341 | The Family |
| SBS | 361 | Psychology and Sociology of Women |
| SOC | 316 | Sociology of Gender |
| SOC | 330 | Sociology of the Family |
| SOC | 393 | Women, Welfare, and the State |
| SOC | 358 | Sociology of Women's Work |
| SOC | 365 | Sociology of the Body |
| SOC | 380 | Sociology of Sexuality |
| SWO | 374 | Sexual Harassment in Education and Work |
| SWO | 375 | Gender and Aging |
| THE | 451 | Women and Theater |
| THE | 451 | 20th Century U.S. Women Playwrights |
| THE | 451 | Butches, Bitches, and Buggers: An Exploration of Twentieth-Century Queer Drama |
| ANES | 650 | Shopping: The Gender and Politics of Consumption |
| ANES | 665 | Sex in New England |

# College of Arts and Sciences 

Associate Deans: Gary J. Johnson, Susan Picinich; Financial Manager: Keva Wright Berry; Director of Student Academic Affairs and CAS Advising: Pamela V. Edwards; Coordinator of Scheduling: Maurice J. Chabot; Administrative Manager: Sharmon Toner

The College of Arts and Sciences is dedicated to the ideal of a liberal arts education and serves as the intellectual core of the University by offering general education courses to all undergraduate students. The College houses seven graduate programs and twenty-three undergraduate academic units in the areas of fine and performing arts, humanities, and natural and social sciences. The faculty of the College is committed to the preservation and dissemination of fundamental knowledge and dedicated to enhancing this knowledge through creative expression, scholarly interpretation, and research. By demanding teaching excellence, the College strives to instill in all students the attributes of creative critical thinking, effective oral and written communication skills, and social values that embrace diversity and multiculturalism. Through the various disciplines, the College contributes to the formation of responsible citizens by providing an educational foundation upon which students build their lives and professions.

The College of Arts and Sciences offers a wide variety of majors and programs leading to graduate and professional study, and directly to careers. The College offers courses and programs of study to students in all schools of the University for intellectual development and aesthetic enrichment.

## Departmental Organization

## Baccalaureate Degree Programs

The College of Arts and Sciences has the following undergraduate schools and departments:

| Art | Mathematics and Statistics <br> Biological Sciences <br> Chemistry |
| :--- | :--- |
| Modern and Classical Languages |  |
| and Literatures |  |

Programs of study leading to a bachelor of arts (B.A.) degree are available in the areas listed below. In addition, bachelor of fine arts (B.F.A.) is offered by the Art Department; bachelor of science (B.S.) is offered by the Department of Biological Sciences, the Department of Chemistry, the Department of Economics, and the Department of Geosciences; and bachelor of music in performance (B.M.) and bachelor of music in music education (B.M.) are offered by the School of Music.

Art
Biochemistry
Biology
Chemistry
Communication
Criminology
Economics
English
French
Geography-Anthropology
Geosciences
History

Liberal Studies: Teachers K-8
Certification Program
Linguistics
Mathematics
Media Studies
Music
Philosophy
Physics
Political Science
Psychology
Sociology
Social Work
Theatre

Self-Designed
a) Group Contract:

Classics
Hispanic Studies
Foreign Languages
French Studies International Studies
Russian Studies
Social Science
General Science
German Studies

## b) Individual Contract

## Requirements for all Baccalaureate Degree Candidates

## Other Educational Opportunities

To be eligible for a baccalaureate degree from the University, a student must meet the following minimum requirements:
I. Core curriculum requirements
II. departmental or program requirements
III. minimum of 120 credits of accepted courses
IV. minimum of 2.0 cumulative grade point average

## Core Curriculum Requirements

Every baccalaureate degree student who is admitted to the University is required to meet the Core curriculum requirements, including college readiness courses if necessary. These are set out in the section on Core curriculum.

## Departmental or Program Requirements

The College requires that every baccalaureate degree student fulfill the requirements of a major program as noted in the catalog section devoted to each department's majors. These requirements may be greater than the college minimum requirements.

## Declaration or Change of Major

Students normally declare a major program prior to completing 53 credits. Students who wish to declare or change their major within the College must obtain a Change of Major form from the Registrar's Office. Students who have to complete college readiness in Mathematics Area B must do so prior to declaring or changing a major within the College of Arts and Sciences and have a USM grade point average in good standing. Methods of satisfying Mathematics Area B are noted in the Academic Policies section of the catalog.

Fine arts students, especially in the Department of Art and the School of Music, usually must begin their program earlier owing to portfolio and audition requirements. Students planning to major in a science are urged to obtain an advisor in the appropriate department and begin the required course sequence as early as possible.

Selecting a major is an important and often difficult decision. Students who are undecided about a major should take courses in programs that interest them before making a final decision. It is recommended that students meet with a faculty member in the Department to request admission to the major and/or to ask questions about the appropriateness of the new major to their long-term goals. Students may also benefit from consulting Career Services and Professional Life Development for information.

Individual departmental or program requirements are described in the sections that follow. Students should note that not all courses listed and described in the following sections are offered each academic year. Consult the particular department or program for further information about the year and semester a specific course will be offered.

## Independent Study Term

Students who have an academic project which they feel would contribute significantly to their program may, with the approval of a faculty sponsor, the appropriate department, and the dean, apply for a semester of independent study. General guidelines for the independent study term may be obtained from departments.

## Double Majors

Students interested in a double major should consult the appropriate departments and obtain a declaration of major form from the Registrar's Office.

College of Arts and Sciences Minors

| Art | Linguistics |
| :--- | :--- |
| Biology | Mathematics |
| Chemistry | Modern Languages |
| Communication | Music |
| Criminology | Philosophy |
| Economics | Physics |
| English | Political Science |
| Geography/Anthropology | Religious Studies |
| Geosciences | Sociology |
| History | Theatre |

## School of Business Minor

The School of Business offers a 21-credit hour minor in business administration to any baccalaureate student. The minor is recommended to liberal arts majors with a strong interest in business theory and practice. For more information, see the School of Business section of this catalog.

## School of Applied Science, Engineering, and Technology Minors

The School of Applied Science, Engineering, and Technology offers minors in computer science, electrical engineering, computer applications, environmental safety and health, environmental science, industrial management, and manufacturing technology. For more information, see the School of Applied Science, Engineering, and Technology section of this catalog.

## Teacher Certification

Students who wish to prepare for a career in teaching at the elementary, middle, or secondary levels work with both the College of Arts and Sciences and the College of Education and Human Development through the Extended Teacher Education Program (ETEP), which offer coursework and experiences at the undergraduate and post-baccalaureate levels.

Undergraduates who seek teacher certification follow these steps:

1. Undergraduate Level
a. College of Arts and Sciences: Students complete a baccalaureate degree with a major in the liberal arts, in a subject related to the desired teaching level and subject;
b. College of Education and Human Development: Students complete the 18credit minor in educational studies (recommended, but optional)
2. Post-Baccalaureate Level College of Education and Human Development
a. Complete the one-year certification program (approximately 33 graduate credits)
b. Complete the master of science in education degree (optional-an additional 18 credits taken over two years during the summer and on weekends)
Additional information on the Extended Teacher Education Program can be found in the College of Education and Human Development section of this catalog.

## Graduate Programs in the College of Arts and Sciences

The College of Arts and Sciences offers six graduate programs leading to the master's degree and two graduate certificate programs. These are the master of arts (M.A.) in American and New England studies, the master of fine arts (M.F.A.) in creative writing, the master of science (M.S.) in biology, the master of music (M.M.), the master of science (M.S.) in statistics, the master of social work (M.S.W.), and certificates of graduate study in Composing Together and the Michael Chekhov Theatre Institute. Consult the University's graduate catalog for further information.

# Interdisciplinary and Multidisciplinary Programs 

A. Bachelor of Liberal Studies

## Teachers for Elementary and Middle Schools (TEAMS) K-8 Certification Track


#### Abstract

The curriculum for this degree is designed to train K-8 teachers in interdisciplinary education, so that they may better teach K-8 students. To be eligible for this degree students must be accepted into the Teachers for Elementary and Middle Schools (TEAMS) Program of the College of Education and Human Development, and must complete the TEAMS Program to teaching certification. Any student who drops the TEAMS Program before certification must apply their completed hours to another degree program.


I. Core Curriculum (34-35 credits) EYE Course (Recommend EYE 108)
English Composition: Core C course
Quantitative Decision Making (MAT 120D: Introduction to Statistics)
Skills of Analysis/Philosophy: Core E course
Performance-centered Arts (THE 102F: Acting for non-majors)
History-centered Arts: Core G course
Humanities: (ENG 120H: Introduction to Literature)
Other times/ Other cultures: Core I course
Social Sciences (HRD 200J: Human Growth and Development)
Social Sciences (LIN 185J: Language, Mind and Society)
Natural Sciences: Core K course
II. English/Language Arts Courses (6 credits)

Choose 2 courses from the following list:
a. ENG 203: Topics in Writing
b. ENG 245: Introduction to Literary Studies*
c. ENG 262: Poetry, the Genre
d. ENG 263: Fiction, the Genre
e. A 300-level course on American Literature

* Those pursuing a concentration in English need 6 credits from this list in addition to this course.

| III. Mathematics Courses (9 credits) |  |  |
| :--- | :--- | :--- |
| MAT | 131 | Number Systems for Elementary Teachers |
| MAT | 231 | Algebra for Elementary Teachers |
| MAT | 232 | Geometry for Elementary Teachers |

IV. Science Courses (8 credits)

Choose 2 lab sciences from the following:

| CHY | 110 K | Chemistry, Life and the Environment |
| :--- | :--- | :--- |
| BIO | $101 / 102 \mathrm{~K}$ | Biological Foundations and Biological Experiences |
| BIO | $103 / 104 \mathrm{~K}$ | Introduction to Marine Biology and Marine Biology <br> Lab |
| AST | $100 / 103 \mathrm{~K}$ | Astronomy and Astronomy Exercises and Experiences <br> GEY |
|  | $100 / 101 \mathrm{~K}$ | Volcanoes, Earthquakes and Moving Plates and <br> Laboratory Experiences in Geology |
| GEY | $105 / 106 \mathrm{~K}$ | Ocean Planet and Ocean Planet Laboratory <br> GEY 109 K | | Field Geology of Maine |
| :--- |
| PHY |
| 101/102K | | Introduction to Physics and Introduction to Physics Lab |
| :--- |
| ESP |
| $101 / 102 \mathrm{~K}$ | | Fundamentals of Environmental Science \& Laboratory |
| :--- |

V. Social Studies Courses (12 credits)

HTY 101I Western Civilization I
HTY 121I United States History to 1800

| POS | 101 J | Intro. to American Government |
| :--- | :--- | :--- |
| GEO | 101 J | Human Geography |

VI. Courses in a Concentration (18 credits)

English Language and Literature
Mathematics
Social Studies
Science

| VII. B.A. Education Courses ( 34 credits) |  |  |
| :--- | :--- | :--- |
| EDU | $120 / 121$ | Language and Literacy Development and Field <br> Experience |
| EDU | $211 / 212$ | Culture and Community and Field Experience <br> Education in the United States or EYE 108 Culture, |
| EDU | 200 | Identity and Education |
| EDU | $220 / 221$ | Middle School Community and Field Experience <br> Applied Skills in Teaching and Learning and Field |
| EDU | $320 / 321$ | Experience |
| EDU | 390 | Portfolio Development |
| EDU | 541 | Seminar in Teaching, Learning and Assessment I |
| EDU | 544 | Applied Pedagogy <br> EDU <br> Intro. to the Writing Process |
| SED | 540 | Nature and Needs of Learners Who Are Exceptional |

Total 121-122 credits--B.A. in liberal studies is awarded and students matriculate into a master's of teaching and learning program (MTL).

| VIII. Post-B.A. Education Courses (21 credits) |  |  |
| :---: | :---: | :---: |
| EDU | 505 | Teaching Mathematics, K-8 |
| EDU | 542 | Seminar in Teaching, Learning and Assessment II |
| EDU | 551 | Teaching Social Studies |
| EDU | 552 | Teaching Science |
| EDU | 565 | Teaching Reading |
| EDU | 644 | Internship in Elem. Educ. ( 6 cr .) |
| Recommendation for K-8 Teacher Certification |  |  |

X. Post-Certification Education Courses (13 credits)

EDU 600 Research Methods and Techniques
EDU 624 Schools and the Classroom
EDU 627/628/629 Classroom Assessment and Research Development
M.S. in Education with an MTL concentration awarded.

## Concentrations

Students must complete at least 17 credit hours in their area of concentration in addition to general education and content area courses required of all TEAMS students. Courses are subject to revision based upon changes to departmental curriculum and the implementation of the general education curriculum.

## A. English Literature and Language

In addition to the English courses required of all TEAMS students, those who would like a concentration in English, Literature and Language must complete the following courses:

Two courses with an emphasis on writing skills, literary analysis, rhetoric, and style (e.g., ENG 203, 305, and 330)

One pre-1800 Literature and Culture course
Two post-1800 Literature and Culture courses
One 300-400 level Literature and Culture course
B. Social Studies

In addition to the social studies required of all TEAMS students, those who would like a concentration in Social Studies must complete the following courses:

| HTY | 102I | Western Civilization II |
| :--- | :--- | :--- |
| HTY | 122 I | United States History from 1800 to 1900 |


| HTY | 360 | History of Maine <br> or |
| :--- | :--- | :--- |
| GEO | 120 J | Geography of Maine |
| ANT | 220 I | North American Indians |

At least two 300-400 level courses in one of the following disciplines: History, Geography, Anthropology, Political Science, or Economics.
C. Math

In addition to the math courses required of all TEAMS students, those who would like a concentration in Math must complete the following courses:
\(\left.$$
\begin{array}{lll}\text { MAT } & 108 & \begin{array}{l}\text { College Algebra } \\
\text { MAT }\end{array}
$$ <br>
Pre-Calculus Mathematics <br>

or\end{array}\right]\)| MAT | 152 D |
| :--- | :--- | | Calculus A |
| :--- |
| MAT |
| MAT | 460 | Discrete Mathematics I |
| :--- |
| Mathematical Modeling. |
| MME | $445 \quad$| Teaching 7-12 Mathematics in Maine: Curriculum and |
| :--- |
| Capstone Course |

D. Science

Students choose either the Physical or Life Sciences Track.
Choose one of the following two tracks:
Physical Science
Required of all students in Physical Science Concentration: Credits
PHY $\quad 111 \mathrm{~K} / 114 \mathrm{~K}$ Elements of Physics I Lecture and Lab 4

PHY 112/116 Elements of Physics II Lecture and Lab 4
CHY $113 \mathrm{~K} / 114 \mathrm{~K}$ Principles of Chemistry I Lecture and Lab 4
CHY 115/116 Principles of Chemistry II Lecture and Lab 4
GEY 100K Volcanoes, Earthquakes, and Moving Plates 3
GEY $101 \mathrm{~K} \quad$ Laboratory Experiences in Geology 1
Choose at least 10 credits from the following courses, from at least two disciplines: Credits

| PHY | 211 | Non-classical Physics <br> (requires MAT 152D Calculus) | 3 |
| :--- | :--- | :--- | :--- |
| CHY | $231 / 232$ | Analytic Chemistry and Lab | 4 |
| CHY | $251 / 252$ | Organic Chemistry I and Lab | 5 |
| CHY | $253 / 254$ | Organic Chemistry II and Lab | 5 |
| GEY | 201 | Paleogeography and Global Change | 4 |
| GEY | 202 | Landscape Evolution and Analysis | 4 |
| GEY | 203 | Mineralogy | 4 |
| GEY | 295 | Water Resources: Science and Issues | 3 |
| ESP/ |  |  |  |
| GEY 207 | Atmosphere: Science, Climate, and Change | 3 |  |
| ESP | 250 | Soils and Land Use | 4 |

Life Science
Required of all students in the Life Science Concentration: Credits

| BIO | $105 \mathrm{~K} / 106 \mathrm{~K}$ | Biological Principles I: Cellular Biology and <br> Laboratory | 4.5 |
| :--- | :--- | :--- | :--- |


| BIO 107 | Biological Principles II: Evolution, Biodiversity, <br> and Ecology | 4.5 |
| :--- | :--- | :--- |

BIO $109 \quad$ Biological Principles III: Functional Biology $\quad 3$
BIO 217 Evolution 3
ESP 101K/102K Fundamentals of Environmental Science and Lab 4

Choose at least 12 credits from the following: Credits
BIO 201 Genetics 3
BIO $231 \quad$ Botany 4.5
BIO 251 History of Biology 3
BIO 305 Developmental Biology 3
BIO 306 Developmental Lab 2

| BIO | 331 | Ecology | 3 |
| :--- | :--- | :--- | :--- |
| BIO | 332 | Field Ecology | 2 |
| BIO | 335 | Entomology | 3 |
| BIO | 351 | Invertebrate Zoology | 5 |
| BIO | 353 | Vertebrate Zoology | 5 |
| ESP | 125 | Intro. to Environmental Ecology | 3 |
| ESP | 126 | Intro. to Environmental Ecology Lab | 1 |

# B. Self-Designed Major Programs 

Self-Designed Major Committee: Patricia O'Mahoney-Damon, chair; Associate Professors: Kent (Theatre), O'Mahoney-Damon (Biology), Rosenthal (Russian Studies); Assistant Professors: Prudente (Chemistry), Thompson (Psychology); Tuchinsky (History), Vassallo (Political Science)

The self-designed major program allows students to receive a bachelor of arts degree. This program offers many opportunities for students to study traditional subjects as well as new fields of inquiry that the University does not offer through existing departments. The multidisciplinary format of self-designed majors allows students the flexibility of pursuing their educational interests in a topical or thematic context rather than through an established discipline.

There are two types of self-designed major programs, (a) individual contract and (b) group contract programs. Students may work for a self-designed major degree through either type of program. All programs are approved and administered by the Self-Designed Major Committee.

## A. Individual Contract Programs

The individual self-designed major allows the student to design a multidisciplinary program not available through a department major or a group contract program. The Self-Designed Major Committee reviews student proposals at its regularly scheduled meetings throughout the academic year. Proposals should be approved normally during the student's sophomore year. The deadline for completion of all self-designed major-related requirements coincides with expiration of the catalog in effect at the time of the student's original matriculation. Failure to complete the selfdesigned major within this time span will require reevaluation or reapplication of the self-designed major proposal and approved courses. Application forms and guidelines may be obtained from the Office of the Dean of the College of Arts and Sciences.

## B. Group Contract Programs

Group contract programs are coherent multidisciplinary studies representing fields of interest that have developed over the years at USM. Additional group contract programs will be considered by the Self-Designed Major Committee as they are required for enhancing the quality of the CAS curriculum. USM currently offers the following group contract programs:

Classics
German Studies
Hispanic Studies
Foreign Languages International Studies
French Studies Russian Studies
General Science
Social Science
Students interested in any of the above programs should contact the coordinator of that group contract program for more information.

## SDM 400 Senior Thesis for Self-Designed Majors

This course provides senior SDES independent contract majors an opportunity to receive credit for the required senior thesis or project. Thesis or project must be developed in consultation with student's faculty advisors and approved in advance by the SDES Committee. Prerequisites: admission to self-designed major program and senior standing. Cr 1-6.

## SDM 401 Senior Seminar in Social Science

The capstone to the major and required for the degree, this seminar explores the nature and the
craft of social science. The topic will vary but will always be a particular theme or set of issues that span various social science disciplines, such as Competing Methodologies in Social Science, Ethnohistory, United States Studies, etc. Students are expected, through discussion and writing, to apply the knowledge and skills acquired in previous social science courses. Prerequisite: the course is open only to social science majors or students majoring in one of the eight disciplines that make up the social science major. Students must also be seniors or second semester juniors.

Cr 3.

Students can choose from among three tracks for the classics major. The classical humanities track is an interdisciplinary major for students who value classics and its liberal arts approach to education and who wish to explore the ancient world and the classical tradition from the perspectives of a variety of disciplines. The classical languages track prepares students for graduate study in classics and is especially suited for students who want intensive study in Latin and ancient Greek. The Latin for teachers track prepares students to teach K-12 Latin.

## Track 1: Classical Humanities Major

The minimum number of credits (exclusive of the University's Core curriculum) for the self-designed major in classical humanities: 51. For grade requirements, please refer to the Modern and Classical Languages and Literatures section of this catalog. Students have a great deal of choice within the major and will be advised by the coordinators to select courses that follow a logical sequence and build upon one another.

Required Courses
I. Language (15-17 credits, depending on language preparation and courses taken):
A. Three semesters of Latin or ancient Greek, at least one of which must be above the 100-level, and either
B1. CLA 171E Etymology for Everyone AND one of the following: ENG $305,330,331,337$, or 338 (note where prerequisites apply). or
B2. LIN 185J Language, Mind and Society AND LIN 313 Syntax
Note: In the B category, 100-level courses must be taken before the 300-level. II. Literature ( 9 credits):

1. CLA 283H Epic Hero or CLA 270 Homer's Odyssey and Joyce's Ulysses and
2. CLA 384H What Would Antigone Do? and
3. One additional literature course with a non-CLA designation, such as PHI 215 Philosophy of Literature [prerequisite: any PHI 1xx] or GER 281H The German Novelle
III. History, Culture, and Civilization (12 credits)
4. CLA 291I Golden Age of Greece or HTY 303 History of the Ancient Near East and Greece
and
5. CLA 292 I Rome, Republic to Empire or HTY 304 History of Rome Students may substitute HON 101G/H/I Wisdom Stories from Antiquity or HTY101I Western Civilization for one of the courses listed in III. 1 and III. 2 and
6. PHI 101-110E Introduction to Philosophy - choose one and
7. CLA 285I Classical Mythology
IV. Material Culture (3 credits)

ARH 111G Art History: Prehistoric to Medieval or CLA 321 The Art, Architecture, and Archaeology of the Ancient World or 3 credits of study abroad in Greece or Rome (Centro, College Year in Athens, Lesbos, USM in Tuscany) or ANT 103 Introduction to Archaeology or ANT 202I Origins of Civilization
Note: CLA 321 is equivalent to ARH 321 Classical Art
V. Applied Skills ( 3 credits-choose one or propose your own)

The ideal of education, as practiced in antiquity and passed on in the classical tradition, involves the application of knowledge and activity based upon that knowledge. Courses in this category are meant to make that ideal of education explicit and generally involve some aspect of praxis or performance, whether spoken, written, plastic, or field-based.

| ANT | 260 | Public Interpretation in Anthropology |
| :--- | :--- | :--- |
| ENG | 201 F | Creative Writing |
| ENG | 202 F | Memoir and Autobiography |
| ENG | 203 | Topics in Writing |
| ENG | $299-304$ | Stonecoast Writers' Conference |
| ENG | 300 F | Fiction Writing |
| ENG | 301 F | Poetry Writing |
| ENG | 302 F | Fiction Workshop |
| ENG | 303 F | Poetry Workshop |
| ENG | 304 | Advanced Memoir |
| ENG | 305 | Rhetoric, Syntax, and Style |
| ENG | 309 | Newswriting |
| GEO | 108 | GIS Applications |
| GEO | 208 | Cartography I |
| THE | 102 F | Acting: Performance |
| THE | 170 F | Public Speaking |
| THE | 175 F | Oral Interpretation |
| THE | 250 | Playwriting |

Any Studio Art course
Note: Students should be aware that ENG 201F is a prerequisite for other creative writing courses. Students should also be aware that the Art Department offers six foundations courses that are prerequisites for any advanced work in studio art.
VI. Electives ( 6 credits - choose two from the list below or suggest another; electives must be 300-level or above, except as noted below)

| ANT | 306 | Analysis of Archaeological Materials |
| :--- | :--- | :--- |
| ARH | 321 | Classical Art |
| ARH | 322 | Medieval Art |
| ARH | 323 | Renaissance Art |
| ENG | 245 | Introduction to Literary Studies |
| ENG | 262 | Introduction to Poetry |
| ENG | 264 | Introduction to Drama |

The following ENG 300-level courses from the designations Ancient, Medieval, and Renaissance: ENG 315, 316, 317, 320, 325, 350, 351, 352, 353, 354, 355, 357, 360, 361, 362, 363

| ENG | 330 | History of the English Language |
| :--- | :--- | :--- |
| ENG | 396 | Joyce |
| HTY | 305 | The Historical Jesus |
| HTY | 306 | Roman Sexuality and Early Christianity |
| HTY | 307 | Judaism, Christianity, and Islam: Origins and Interactions |
| HTY | 311 | Medieval Civilization |
| HTY | 312 | Renaissance Civilization |
| PHI | 310 I | History of Ancient Philosophy |
| PHI | 320 I | History of Medieval Philosophy |
| POS | 390 | Political and Social Thought I |
| THE | $101 G$ | Intro to Drama |
| THE | 351 | Dramatic Literature and Theater History I: Origins to |
|  | 15th Century |  |

Any course in Latin or ancient Greek beyond the first semester and beyond that required for the major.

Any modern language course beyond the third semester
Any studio art course that builds upon that taken to fulfill requirement V . (Applied Skills)

Any creative writing course that builds upon that taken to fulfill requirement V . (Applied Skills)
VII. CLA 410 Antiquity and Modernity: Capstone Experience in Classics

## Track 2: Classical Languages Major

The minimum number of credits (exclusive of the University's Core curriculum) for the self-designed major in classical studies: 41. For grade requirements, please refer to the Modern and Classical Languages and Literatures section of this catalog.
I. Languages ( 20 credits)
A. Three Latin courses above the $100-\mathrm{level}$
B. Ancient Greek 101, 102, and 251
II. Civilization and Literature (18 credits)
A. CLA 291I Golden Age of Greece OR HTY 303 History of Ancient Near East and Greece
B. CLA 292I Rome, from Republic to Empire OR HTY 304 History of Rome
C. One of the following courses in ancient literature: CLA 270 Homer's Odyssey and Joyce's Ulysses CLA 283H Epic Hero ENG 315 Ancient Literature
D. CLA 285I Classical Mythology OR CLA 384H What Would Antigone Do?
E. Two courses (six credits) from the following list: ARH/
CLA 321G Classical Art/Art, Architecture, and Archaeology of the Ancient World
HTY 306 Roman Sexuality and Christianity
PHI 310I History of Ancient Philosophy
POS 390 Political and Social Thought I
Additional LAT 470 course(s) beyond those required for the major
Students may petition to count other courses related to antiquity in this category
III. CLA 410 Antiquity and Modernity: Capstone Experience in Classics

## Track 3: Latin for Teachers

The minimum number of credits (exclusive of the University's Core curriculum) for the self-designed Latin for teachers major is 41 credits. For grade requirements, please refer to the Modern and Classical Languages and Literatures section of this catalog.

Language and Literature

1. Latin (LAT): $101,102,251,252,310,470,470$ (or 23 total credits of LAT)
2. CLA 171E (Etymology for Everyone), 3 credits
3. CLA 410 (Capstone Experience in Classics with significant work in Latin), 3 credits
History and Civilization
4. CLA 285 I (Classical Mythology), 3 credits
5. CLA 292I (Rome: Republic to Empire) OR HTY 304 (History of Rome), 3 credits
Electives
6. Two additional courses ( $6-8$ credits) from among the following on Greek culture or language: ARH/CLA 321G, CLA 283H, CLA 292I, CLA 384H, HTY 303, PHI 310I, POS 390, or any course in ancient Greek (GRE).

## Foreign Languages

Coordinator: Jeannine Uzzi, 55 Exeter Street, Portland
The minimum number of credits (exclusive of the University's Core curriculum) required for the self-designed major in foreign languages: 36 or 38, depending on the selection of languages. For grade requirements, please refer to the Modern and Classical Languages and Literatures section of this catalog.

For a major in foreign languages, students may choose any two of the following languages and take these courses in the languages of their choice:

French: FRE 306, 307, 308, or 309; 331; 291I or 292I; and 367, 369
German: GER 321, 322, 351H, 352H, 281H, 470
Latin: LAT 251, 252, and two semesters of LAT 470: CLA 292I or HTY 304; either CLA 283 H or 384 H
Russian: RUS 281H, 301, 302, 321, 351, 470
Spanish: SPA 300, 304, 305, 332, 351H, and 352H or 450
In addition, it is strongly recommended that students take CLA 171E or an IndoEuropean linguistics course.

The minimum number of credits (exclusive of the University's Core curriculum) required for the self-designed major in French studies: 37 . For grade requirements, please refer to the Modern and Classical Languages and Literatures section of this catalog.

French Language and Literature (19 credits)
FRE 305 French Phonetics

FRE 306 Third Year French I
FRE 307 Third Year French II
FRE 308 Third Year French Conversation I
FRE 309 Third Year French Conversation II
FRE 331 Workshop in Literary Analysis
FRE 332 Intro to French Literature
French Civilization and Literature in Translation (6 credits)
FRE 291I French Civilization: An Historical Approach
FRE 292I Topics in Contemporary Francophone Civilization
Electives in French Literature (6 credits)
One of the following two courses ( 3 credits)
FRE 367 Genres and Periods in French Literature
FRE 369 Topics and Themes in French Literature
One of the following two courses (3 credits)
FRE 467 Seminar in Genres and Periods in French Literature
FRE 469 Seminar in Topics and Themes in French Literature
Electives (6 credits)
Two of the following
LAT 101-102 Beginning Latin
ENG 245 Intro to Literary Studies
ENG 340 History of Literary Criticism
ENG 354 Studies in Medieval Literature and Culture (when topic deals with France and England)
HTY 311 Medieval Civilization
HTY 312 Renaissance and Reformation
HTY 316 French Revolution and Napoleon
HUM 310I French Settlement in the Northeast
POS $335 \quad$ Politics in Western Europe
POS 340 Politics in Developing Nations
ARH 322 Medieval Art
ARH 323 Renaissance Art
ARH 324 Seventeenth- and Eighteenth-Century Art
ARH 326 Nineteenth-Century European Art
ARH 327 Modern Art
MUS 203G Music in the 20th Century

## German Studies

Coordinator: Angela Gulielmetti, 55 Exeter Street, Portland
The minimum number of credits (exclusive of the University's Core curriculum) required for the self-designed major in German studies: 36. For grade requirements, please refer to the Modern and Classical Languages and Literatures section of this catalog.

German Language and Literature
GER 321-322 Composition/Conversation
GER 351H-
352H Introduction to German Literature
GER 281H The German Novelle
GER 470 Independent Study
Social Sciences (any three)
HTY 324 World Wars I and II: European War and Diplomacy
HTY 330 Germany: Bismarck to Hitler
HTY 334 The Holocaust: Policy, Practice, Response
Humanities (any three)
CLA 171E Etymology for Everyone

Course substitutions can be made in the Social Sciences and Humanities categories upon prior approval.

## Hispanic Studies

Coordinator: Charlene Suscavage, 55 Exeter Street, Portland
The minimum number of credits (exclusive of the University's Core curriculum) required for the self-designed major in Hispanic studies: 38. For grade requirements, please refer to the Modern and Classical Languages and Literatures section of this catalog.
Required Courses
Spanish Language and Literature

| SPA | 300 | Topics in Conversation |
| :---: | :--- | :--- |
| SPA | 304 | Advanced Conversation and Composition |
| SPA | 305 | Introduction to Hispanic Literature |
| SPA | 332 | Advanced Grammar and Stylistics |
| SPA | 351 H | Readings in Contemporary Spanish Literature |
| SPA | 352 H | Readings in Modern Latin American Literature |
| SPA | 450 | Topics in Hispanic Language and Literature |
| History and Culture |  |  |
| SPA | 270 |  |
| HTY Culture and Civilization of Spain | 181 I | History of Latin America I |
| HTY | 182 I | History of Latin America II |

Electives
Students must choose 6 credits from other Spanish courses, study abroad program, or from related courses in other disciplines. These electives must be approved by a Spanish faculty advisor.
Course substitutions can be made in the electives upon prior approval. At least two semesters of another Romance language are strongly recommended.

## Russian Studies

Coordinator: Charlotte Rosenthal, 55 Exeter Street, Portland
The minimum number of credits (exclusive of the University's Core curriculum) required for the self-designed major in Russian studies: 36. For grade requirements, please refer to the Modern and Classical Languages and Literatures section of this catalog.

| Humanities |  |  |
| :--- | :--- | :--- |
| RUS | 281H | Russian Literature in English Translation or |
| RUS | 293G | Survey of Russian Cinema |
| RUS | 291I | Russian Culture and Civilization (in English) |
| RUS | 301 | Advanced Intermediate Russian I |
| RUS | 302 | Advanced Intermediate Russian II |
| RUS | 321 | Advanced Russian |
| RUS | 351 | Seminar in Russian Literature |
| RUS | 470 | Independent Study |
| Social Sciences* |  |  |
| HTY | 317 | Early Russian History |
| HTY | 318 | Russia and the Soviet Union since 1855 |
| POS | 336 | Government and Politics of Russia |
| POS | 339 | Russian Foreign Policy |
| ANT | 222 I | Peoples of the North |

Other courses recommended, but not required, for the self-designed major in Russian studies:

POS 104J Introduction to International Relations
HTY 101I Western Civilization I
HTY 102I Western Civilization II
GEO 101J Human Geography
*Note that all upper division courses have prerequisites.

## International Studies

Director: Lynn Kuzma, 126 Bedford Street, Portland
The International Studies program serves students interested in world affairs. A wide range of students with a diverse set of interests in global issues will find the program adaptable to their needs. It prepares graduates for a varied set of careers in international affairs. Students may go on to work in government, business, intergovernmental organizations, nonprofit institutions, and teaching. From the broadest perspective, international studies nurtures a solid understanding of world problems. It provides the analytical skills for understanding vital issues of the emerging global community.

To receive the bachelor's degree with a specialization in international studies, a student must complete a minimum of 120 credits. These include all University proficiency and Core requirements, competency (to third-year level) in a foreign language, and 48 hours of coursework within the international studies program.

The 48 credits within the program must be distributed as follows:

- 24 hours taken from the list of approved courses (see program director) in one of the program's Core departments: political science, economics, history.
- 9 hours of approved courses in each of the program's other two Core departments. Note that at least two courses taken in economics must be at the $300-$ level; at least two courses in political science must be at the 200-level; and in history two courses other than Western Civilization I and II must be taken.
- 6 hours of approved courses taken in at least two of the other departments which participate in this program. INS courses, as well as certain COR courses (see program director), count toward this requirement as credit from one participating department.
In addition to the courses listed above, students must achieve competency in a foreign language through the third-year level. This competency may be achieved through coursework at USM, through transfer credits from another university, through some intensive summer study program at an American university, through study abroad, or through background (having lived abroad, being a foreign student, etc.)

In all cases of doubt, the final decision as to whether a student has completed the program's language requirement rests with the USM Department of Modern and Classical Languages and Literatures. Students who can show that they have achieved at least third-year level in some language other than English need take no foreign language courses at USM, although they may do so if they wish. Only courses above third-year level in any language will count toward the 48-hour requirement for this major.

Once a year, the director of the International Studies program will issue a minicalendar listing all USM courses acceptable for requirements in this major. Students must refer to this calendar when choosing courses. The director may, in rare cases, decide that a course not listed in the mini-calendar could fulfill a particular student's major requirements. For example, a new COR course with an international focus might qualify as an exception, or some experimental offering under the 99 designation. Exceptions of this sort are unusual; they must be given by the director to the student in writing, with a copy placed in the student's files.

Those students who wish to undertake independent research projects may do so with INS 480 and INS 481. Exceptional students will be encouraged to do a senior thesis. This endeavor will provide six hours of academic credit and will normally result in a sound, scholarly paper of 50 -plus pages. A final defense of the paper, involving three faculty readers, is required. Students awarded a grade of at least 90 on the thesis will be recognized as having graduated "With Honors in International Studies."

For admittance into the program, the student must have:
completed a minimum of 30 credit hours in arts and sciences. Of these, at least 15 credit hours must be completed in CAS courses at USM;
achieved a GPA of 2.5 or better in USM courses, including a minimum of 2.8 or better in CAS courses at USM;
completed USM's minimum proficiency requirements.
To graduate from this program, the student:
must have completed 48 hours of coursework, distributed in the manner described above;
must have attained a GPA at USM of 2.5 or better, including a GPA of 2.8 or better in CAS courses at USM;
must have attained grades of C - or higher in all international studies courses, including courses in foreign language. No course taken on a pass/fail basis will count toward this major.

Students who wish to graduate with honors in this major must:
maintain a GPA of 3.2 or better;
be recommended by a faculty member who teaches courses within the program, one who is willing to supervise a thesis;
be approved by the program's Council of Faculty Advisers;
take six hours of coursework, beyond the 48 -hour minimum, under the Independent Study and Senior Thesis designations;
write a thesis of approximately 50 pages, then present it to, and defend it before, a committee composed of three faculty members approved by the director of the program;
obtain a grade of 90 or better on the thesis, as determined by the three faculty members who read it and hear the student's defense.

In the special case of students who complete a thesis, but obtain a grade of less than 90 (or students who complete a thesis with a grade of 90 or better, but whose final GPA drops below 3.2), those students will still receive six hours of course credit for their thesis work, even though they will not be able to graduate with honors. A student's grade for those six hours of coursework will be determined by the thesis committee. A thesis grade of less than C - cannot count toward completion of any requirements within the International Studies program.

All students in this program are strongly encouraged to engage in a program of study abroad. A summer, a semester, or even a year or more abroad will greatly enhance any student's understanding of world affairs. The director will work closely with any student who wishes to explore this option and will make every effort to facilitate this possibility for the student.

## INS 480 Independent Study I

This course is intended for advanced students in international studies who want to develop their research skills and knowledge of particular subjects in international affairs. The student must work with a faculty advisor in outlining and pursuing the proposed course of study. All proposals for Independent Study must be approved by the director of the program. Prerequisite: advanced standing in the program.

Cr 3.

## INS 481 Independent Study II

This course is intended for the exceptional student who wishes to carry out two independent study projects during an undergraduate career. The course description and prerequisites are identical to those given above for INS 480.

Cr 3.

## INS 485 International Studies Internship

Through internships in the International Studies program, students achieve the experience and background for understanding problems and practices of international scope. For internship arrangements
and course responsibilities, consult the director of the program. This course is open only to advanced students in international studies and requires the permission of the program director. Cr 3-6.

## INS 490 International Studies Seminar

The seminar focuses on theories of international relations and current methodology in the field. Students will engage in intensive analysis of classical and current works. Prerequisite: advanced standing in the program or permission of the instructor.
Cr 3 .

## INS 495 Senior Thesis

Selected students in international studies program will be encouraged to write a senior thesis. The topic should be chosen in consultation with a faculty advisor. Normally, it will be a two-semester project for the student's senior year. Extensive collaboration between student and thesis advisor is expected. The final paper should be approximately 50 pages in length and will be evaluated by a committee consisting of the thesis advisor and two additional faculty members appointed by the program director. Cr 3.

## General Science

Coordinators: Theresa Theodose, 408 Science Building, Portland, and Robert Kuech, 507 Bailey Hall, Gorham
Steering Committee: Professor: Sanford (Environmental Science); Associate Professors: Theodose (Biology), LaSala (Physics), Novak (Geosciences), Kuech (Teacher Education)

The general science major at USM serves students with a strong interest in teaching middle school science by providing a strong science background reflecting the Maine Learning Results. General science is also appropriate for students who seek an interdisciplinary, integrated science experience rather than a major in just one science discipline.

Each of three options provides a combination of courses from several areas of science. For a particular option, that discipline is more rigorously represented with coursework equivalent to that required for a minor in that discipline at USM. A capstone course stresses the interdisciplinary nature of the major. Options for study are available in life sciences, physical sciences, and earth sciences. Students enrolled in the physical sciences major may choose to minor in either chemistry or physics.

Acceptance into this program is contingent upon admission to USM and successful completion of the University's writing and mathematics proficiency requirements.

Graduation requirements include a minimum GPA of 2.50 and completion of one of the three options listed above (44.5-49 hours depending upon the option/track). A student must receive a C - or better in any course, including lab courses, for the course to count toward the major.

| Option A. Life Sciences (42 credits) |  |  |
| :---: | :---: | :---: |
| Required courses: |  |  |
| BIO | 105K, 106K, |  |
|  | 107 | Biological Principles |
| CHY | 110K | Chemistry, Life, and the Environment |
| ESP | 101K, 102K | Fundamentals of Environmental Science |
| PHY | 111K, 114K | Elements of Physics |
| Select one: |  |  |
| AST | 100K, 103K | Astronomy |
| GEY | 100K, 101 K | Volcanoes, Earthquakes, and Moving Plates |
| GEY | 103K, 101K | Floods, Glaciers, and Changing Climate |
| GEY | 105K, 106K | Ocean Planet |
| BIO | 217 | Evolution |
| BIO | 200 or higher | ctives (10 credit hours) |
| SDM | 405 | Science Capstone |
| Option B. Physical Science (43-46 credits) |  |  |
| Required courses: |  |  |
| BIO | 101K, 102K | Biological Foundations |
| CHY | 113-116 | Chemical Principles |
| PHY | $\begin{aligned} & 121 \mathrm{~K}, 114 \mathrm{~K}, \\ & 123,116 \end{aligned}$ | General Physics |
| Select one: |  |  |
| AST | 100K, 103K | Astronomy |
| GEY | 100K, 101 K | Volcanoes, Earthquakes, and Moving Plates |
| GEY | 103K, 101K | Floods, Glaciers, and Changing Climate |
| GEY | 105K, 106K | Ocean Planet |
| ESP | 101K, 102K | Fundamentals of Environmental Science |
| Option B with a Minor in Chemistry (46 credits) |  |  |
| CHY | 251-254 | Organic Chemistry |
| CHY | 231,232 | Analytical Chemistry |
| SDM | 405 | Science Capstone |
| Option B with a Minor in Physics (49 credits) |  |  |
| PHY | 211 Non | lassical Physics |
| PHY | 240* Inte | diate Laboratory* |



## Social Science

Option I
Coordinator: Dana McDaniel, 65 Exeter Street, Portland
Steering Committee: Bjelic (Criminology), Hillard (Economics), McDaniel (Linguistics), Savage (Geography)

The group contract major in social science is a multidisciplinary program consisting of the following eight disciplines: criminology, economics, geography-anthropology, history, linguistics, political science, sociology, and women's studies. In order to declare a major in social science, students must have met the University's C and D Core requirements and must have a GPA of at least 2.5 . Students who wish to declare a major in social science must submit a completed application form (available from the coordinator's office) to a member of the steering committee. Each student must take a minimum of 51 credits to complete the major. Students must receive a grade of C - or higher in courses taken to fulfill the major.

Students choose between Options I and II below. The following three requirements apply to all students, regardless of option: 1.) Every student's social science curriculum must include at least one of the following social science methods courses: CRM 220, ECO 305, GYA 202D, HTY 200, LIN 390, POS 203, SOC 301; 2.) All students must take a 3-credit capstone course, SDM 401, in addition to the requirements specified under their option; 3.) All students majoring in social science must demonstrate an intermediate competence in one foreign language as part of the departmental requirements for graduation. This requirement can be fulfilled by achieving a grade of at least C - in the second semester of an intermediate level course (and any necessary prerequisites) or by examination.

Students select one of the eight disciplines as a concentration. They must complete 21-23 credits (usually seven courses) in that discipline, as specified below.

| Discipline | Requirements for Concentration <br> Criminology <br> CRM 215J, CRM 216, CRM 220, CRM 301, CRM <br> 317, CRM 334, and one 3-credit CRM course that <br> is 300-level or above |
| :--- | :--- |
| Economics | ECO 101J, ECO 102J, ECO 301, and four 3-credit <br> courses that are 300-level or above |
| Geography-Anthropology | GEO 101J or GEO 102K; two courses from ANT <br> 101J, ANT 102K, GYA 202D; any two 3-credit <br> GEO, ANT, or GYA courses that are 200-level or <br> above; and any two 3-credit GEO, ANT, or GYA <br> courses that are 300-level or above |
| History | seven 3-credit HTY courses, at least four of which <br> are 200-level or above |

Linguistics

Political Science

Sociology

Women's Studies

LIN 185J, LIN 201J, and five 3-credit LIN courses that are 300 -level or above

POS 101J, POS 102J, and five 3-credit POS courses, at least three of which are 300-level or above

SOC 100J, SOC 210E, SOC 300, SOC 301, SOC 312, and two additional 3-credit SOC courses

WST 280W, WST 380, WST 390, WST 235, WST 245 , WST 255 , WST 265 ; if any of the latter four courses are not offered, they may be replaced by WST 220, WST 320

## Option II

## Capstone Course

Students choosing Option I also take 27 credits outside of their concentration. The 27 credits must be divided equally among three of the remaining seven disciplines (three courses in each), and at least nine of the 27 credits must be upper division level ( 200 or above). Note that these courses are not restricted to the courses listed above as requirements for the concentrations.

Students select one interdisciplinary topic within the social sciences as a concentration. In consultation with their advisor, they design a curriculum that consists of at least 30 credits ( 10 courses) on their topic from at least two (but no more than six) of the eight disciplines. At least 18 of the 30 credits must be above the introductory level.

Students choosing Option II also take 18 credits in two disciplines not included in their concentration-three courses in each discipline. At least six of the 18 credits must be upper division level (200 or above).

All social science majors (regardless of option) must take SDM 401 in their senior year or during the second semester of their junior year. The purpose of this course is to bring together the knowledge and experience students have acquired through the major, and to allow them to apply that knowledge.

Notes:

1. University policy states that there can be no more than one overlap between the courses taken to fulfill the Core curriculum requirements and the courses that count toward the student's major. "Overlap" is defined in terms of the three-letter prefix (e.g., ENG, SOC, WST); that is, a student may take only one course toward the Core that has the prefix of the student's major. (The overlapping Core courses may itself also count toward the major or it may just share a prefix with the major.)

In the case of the social science major, which is multidisciplinary, the overlap policy is interpreted as follows. A student may take only one Core course with a prefix that corresponds to the disciplines included in that student's social science major. For example, a student with Option I whose major consists of courses in sociology, women's studies, history, and political science could count toward the Core only one course that had a SOC, WST, HTY, or POS prefix; Core courses with prefixes corresponding to other social science disciplines (e.g., LIN, ECO) would not be overlaps for this student.
2. Students who intend to teach social studies at the secondary level should consult with their advisor to design a curriculum that includes the specific social science courses required by the state of Maine for certification.
3. Students who have already taken more than nine credits of 100-level courses in the social sciences and who, due to prerequisites, are required to take more 100 level courses should consider consulting with their advisor about possible alternative arrangements.

## SDM 401 Senior Seminar in Social Science

The capstone to the major and required for the degree, this seminar explores the nature and the craft of social science. The topic will vary but will always be a particular theme or set of issues that span various social science disciplines, such as competing methodologies in social science, ethnohistory, United States studies, etc. Students are expected,
through discussion and writing, to apply the knowledge and skills acquired in previous social science courses. Prerequisite: The course is open only to social science majors or students majoring in one of the eight disciplines that make up the social science major. Students must also be seniors or second semester juniors.

Cr 3.

# C. Interdisciplinary Minors 

Co-Directors: Vincent E. Collom (Sociology); Michael Hillard (Economics), 120 Bedford Street, Portland<br>Committee: Eagan (History); Savage (Geography-Anthropology)

The minor in labor studies examines many aspects of work and workers but focuses especially on the relationships among individual lives, work, class processes and dynamics, and capitalist development. The minor in labor studies addresses the practical problems of work, workers, and their organizations, as well as broad conceptual and theoretical issues including, but not limited to, the relationships among labor, work, and class; a critical examination of class processes and dynamics; a critical examination of capitalist development; the intersections of class with race, ethnicity, gender, and generation; and historical perspectives on all of these topics.

The minor is an interdisciplinary program drawing on faculty and courses from economics, geography, history, arts and humanities, and sociology. Courses provide substantive knowledge of these disciplines and will help to develop critical thinking and analysis skills, writing and oral communication skills, and social science and historical research methods.

Because nearly every individual and organization deal with employees and work, there is constant demand for graduates with understanding and abilities in this area. Students will be prepared for careers in the private sector, labor unions, social services, and all levels of government.

The minor in labor studies is available to students in any major within the University. Students wishing to pursue the minor must be in good standing with the University and submit a Declaration of Minor form to the USM Registrar. This form is available online at www.usm.maine.edu/reg/forms.htm.

| Select five of the following courses (15 credits): |  |  |  |
| :--- | :--- | :--- | :---: |
| ECO | 220 I | U.S. Economic and Labor History |  |
| ECO | 322 | Economics of Women and Work |  |
| ECO | 323 | U.S. Labor and Employment Relations |  |
| GEO | 302 | Gender, Work, and Space |  |
| GEO | 303 | Economic Geography |  |
| HTY | 132 I | United States History Since 1877 |  |
| HTY | 341 | Black Women in the Americas |  |
| HTY | 358 | Early 20th-Century United States, 1898-1938 |  |
| HTY | 359 | The United States Since 1939 |  |
| HTY | 381 | Latin America and the United States |  |
| HUM | 310 I | French Settlement in the Northeast |  |
| HUM | $330 I$ | Labor, Literature, and the Arts |  |
| SOC | 327 | Social Movements |  |
| SOC | 348 | Sociology of Work |  |
| SOC | 358 | Sociology of Women's Work |  |

Of the five courses, one must be "history-centered" (chosen from among the following: ECO 220I, ECO 323, HTY 132I, HTY 341, HTY 358, HTY 359, HTY 381); one must be "contemporary" (chosen from among the following: ECO 322, GEO 302, GEO 303, SOC 327, SOC 348, SOC 358); one must be "international" (chosen from among the following: GEO 302, GEO 303, HTY 381, SOC 327, SOC 348).

Finally, students can apply no more than six credits from their major toward the minor in labor studies.

The religious studies program offers an opportunity to study religion from an academic, multicultural, and global point of view. The interdisciplinary courses will
expand students' knowledge beyond Western, monotheistic religions to include Eastern, African, and Native American faith traditions. Students who enroll in this minor explore the nature of religious beliefs and the role of language, metaphor, culture, and social institutions in establishing these views. The program's curriculum emphasizes the history of religious practices and how they have changed over time.

The minor in religious studies is available to students in any major who are in good standing at the University. To obtain the minor, students must successfully complete 18 credits as designated below:

| 1) REL 100 Religion and Human Culture 3 creditsAll students are required to complete this course with a grade of C or better. |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 2) Multiple Religious Systems |  |  | 6 credits |
| Select any two of the following courses: |  |  |  |
| PHI | 230 | Philosophy of Religion |  |
| PSY | 399 | Psychology of Religion |  |
| SOC | 334 | Sociology of Religion |  |
| HTY | 309 | Religious Violence and History |  |
| HTY | 394 | Ideologies of Evil |  |
| REL | 399 | Humanity's Spiritual He |  |
| 3) Non-Western Religious Systems |  |  | 3 credits |
| Select one of the following: |  |  |  |
| $\begin{aligned} & \text { HTY } \\ & \text { HTY } \end{aligned}$ | 377E | Chinese Thought |  |
|  | 394 | Politics, Ethics, and Reli |  |
| HUM | 399 | Cross-Cultural Poetry of Spiritualities | tional |
| PHI | 315I | Eastern Philosophy |  |
| 4) Western/Monotheistic Religious Systems |  |  | 3 credits |
| Select one of the following: |  |  |  |
| HTY | 307 | Judaism, Christianity, an |  |
| HTY | 366 | History of Religion in A |  |
| HTY | 394 | The Black Church Cross |  |

5) Electives 3 credits

Select one additional course from any of the above categories or from those listed below:

| ARH | 322 | Medievel Art |
| :--- | :--- | :--- |
| ARH | 323 | Renaissance Art |
| ARH | 329 | Asian Art |
| COR | 122I | Introduction to Islamic Civilization |
| CLA | 285 I | Classical Mythology |
| ENG | 316 | The Bible |
| ENG | 317 | Studies in Ancient and Biblical Literature and Culture |
| HTY | 152 I | The Islamic Near East |
| HTY | 305 | The Historical Jesus |
| HTY | 312 | Renaissance and Reformation |
| HTY | 334 | The Holocaust: Policy, Practice, Response |
| HTY | 394 | Polytheism, Judaism, and Christianity in the Roman Empire |
| HTY | 394 | Religious Violence and Persecution in Early Western |
|  |  | History |
| HUM | 213 | Metaphor in Literature, Science, and Religion |
| HUM | 223 | Life and Literature after Darwin |

## REL 100 Religion and Human Culture

This course is an analytical survey of topics central to religious thought and practice. It considers religion as a worldwide human phenomenon, attempts to extract data about religion from multiple sources and contexts, and focuses upon the common func-
tions of religion from a global perspective. The course also aims to develop sensitivity to topics and issues of a sacred and secular nature as they impact the daily lives of people in a variety of social, cultural, and religious settings.

Cr 3.

Art<br>Chair of the Department: Jan Piribeck, Robie-Andrews, Gorham<br>Professors: Cassidy, Hewitt, Marasco, Shaughnessy; Associate Professors: Burk, Grant, Piribeck, Schiferl; Assistant Professor: Seah; Professor Emeritus: Ubans Director of Exhibitions and Programs: Eyler; Studio Technician: MacWhinnie; Coordinator of Internships: Volland<br>Adjunct Faculty: Judith Allen, Patty Benson, Susan Colburn-Motta, James Flahaven, Rebecca Goodale, Virginia Goodlet, Mary Hart, Anthony Holmquist, Leon Johnson, Richard Lethem, Robert Lieber, Lin Lisberger, George Lloyd, Andrea Martens, Deborah Merrill, Bernard Meyers, Sue Nutty, Elizabeth Olbert, David Poole, Deborah Randall, Alexandra Sax, David Schneider, Richard Wilson

The Department of Art offers four-year degree programs in studio art, art history, and art education. Students may select a bachelor of fine arts (B.F.A.) with concentrations in ceramics, digital art, drawing, painting, photography, printmaking, and sculpture. A concentration in art education is available to B.F.A. candidates who wish to teach art. The bachelor of arts (B.A.) in studio art combines a liberal arts education with emphasis on the visual arts. A bachelor of arts (B.A.) in studio art with a concentration in art and entrepreneurial studies, combining study in studio art with courses in business development, and a bachelor of arts (B.A.) in art with a concentration in art history are also offered.

The Department prides itself on giving students a rigorous studio experience, an historical understanding of the complexity of art practices, and the critical skills needed to produce informed visual artists, art educators, and art historians. Our goal is to graduate artists and art professionals who possess a thorough grounding in their field (both practical and theoretical), who honor the creative process, and who can write about, criticize, and bring context to works of art. The Department is not tied to a specific style or approach to art making, but instead emphasizes students' ability to think creatively, to include their own point of view, and to defend their choices with an informed voice.

Admission<br>Requirements

Applicants to the Department of Art should observe the following procedure. Formal application should be made to the director of undergraduate admission, Office of Undergraduate Admission. Current degree candidates enrolled at the University who transfer into the Department of Art from another discipline must obtain a change of major form and submit this form with a current transcript to the chair of the Department of Art.

A student is then a candidate for matriculation in the Department of Art. All candidates must complete the art foundation, consisting of 2-D and 3-D Design, Drawing I \& II, Art History: Prehistoric to Medieval, and Art History: Renaissance to the Present before matriculating as an art major in the Department of Art.

To become a matriculated art major in one of the two degree programs, a portfolio of original works must be submitted to the Department for evaluation. Portfolios are not required for the art history concentration. This must be done during or no later than one semester beyond completion of the art foundation courses. If the student completed the art foundation at another institution, he or she must submit a portfolio at the next scheduled opportunity and no later than the second semester at USM. The portfolio should consist of no more than 12 works within specific categories. Each student will choose two works to mat with white, off-white or ivory mat board and firm backing. The materials do not have to be archival. The unmatted works on paper will be presented in individual clear sleeves with a firm backing inserted behind the work. Two works will be selected by the Department to exhibit for a 2-3 week exhibition. During this time there will be a reception for students.The categories and numbers of work for each category are as follows:

Two-dimensional works (3 pieces) should be taken from and/or exhibit skills in the visual design of the flat page;

Three-dimensional works (2 pieces) should exhibit (in photographs) capabilities in the physical development and articulation of form and space;

Drawing category ( 3 pieces) should contain works of any medium exhibiting skills and concepts of drawing;

Self-portrait (1 piece) should be executed from life and may be in any medium but should be a representational depiction rendered by hand; and

Open submissions ( 3 pieces) may be work in any medium as long as it conforms to the overall guidelines of this review.

Portfolios that do not adhere to the established procedures will not be accepted for review.

Art candidates whose portfolios are not accepted are required to meet with their advisor and one additional full-time faculty member to review and discuss their plans for re-submission. Portfolios that are not accepted may be re-submitted two additional times. Failure at the conclusion of these three times will result in denial of acceptance as an Art Department degree candidate.

Students are required to submit a portfolio for acceptance to the Department prior to enrolling in any 200-level or above studio courses. Studio art minors may enroll in a 200-level studio course with permission of the instructor.

Portfolio deadlines and application forms may be obtained from the Department of Art. Portfolios are reviewed once each semester. Final notification of a decision will come from the Department of Art approximately two weeks after the portfolios have been evaluated.

Students already enrolled in the University who wish to change their major to art must follow the Departmental admission procedures concerning submission of portfolio, as described above. Art presentation workshops are offered annually.

Only students who have completed the art foundation and who have earned 60 credits or more may enroll for Independent Study courses. Grades of C- or better must be earned to satisfy a major or minor requirement.

Academic credit for summer workshops is available with Haystack Mountain School of Crafts in Deer Isle, Maine. Contact the Department of Art or Summer Session for more information.

## Bachelor of Fine Arts (B.F.A.) Degree in Studio Arts

The B.F.A. degree is offered for students who seek focused, undergraduate professional education in studio practice. There are degree concentrations in ceramics, digital art, drawing, painting, photography, printmaking, and sculpture. The program prepares students to become open, resourceful, critical, and independent thinkers, capable of successfully conceiving, articulating, and resolving their own visual problems, and equally capable of successfully viewing, appreciating, and contemplating the work of others. They will be engaged and active artists producing work that encompasses theoretical and practical knowledge.

Students who intend to pursue professional careers in art and design or who plan to pursue graduate study culminating in the M.F.A. degree are encouraged to seek admission to the B.F.A. program. B.F.A. students are admitted as art candidates. Final acceptance into the B.F.A. degree program depends upon acceptance of portfolio.

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 87 .

Art Foundation (18 credits)
ARH 111G Art History: Prehistory through Medieval
ARH 112G Art History: Renaissance to the Present
ART 141F 2-D Design
ART 142 3-D Design
ART 151F Drawing I
ART 152 Drawing II
Upper Level Art History Requirements (9 credits*)
ARH 200- or 300-level Art History Elective
ARH 200- or 300-level Art History Elective
ARH 411 Philosophy of Art (or PHI 220)
Studio Requirements (9 credits)
Do three of eight 200-level courses other than your concentration.

| ART | 221 | Introduction to Digital Art |
| :--- | :--- | :--- |
| ART | 231 | Introduction to Ceramics |
| ART | 251 | Drawing |
| ART | 261 | Introduction to Painting |
| ART | 271 | Introduction to Photography |
| ART | 281 | Introduction to Printmaking: Intaglio and Relief |
| ART | 282 | Introduction to Printmaking: Lithography and |
|  |  | Screenprinting |
| ART | 291 | Introduction to Sculpture |

ART 2XX Introductory Studio

ART 3XX Intermediate Studio I
ART 3XX Intermediate Studio II
ART 4X1 Advanced Studio I
ART 4X2 Advanced Studio II
ART XXX Required elective in concentration**
ART 400 Internship in the Visual Arts
ART 401 Senior Seminar
Studio Courses (Elective \& Required) (27 credits*)
Any 200-, 300-, or 400-level studio courses
ART Studio Electives

Completion of the senior exhibition is also required for the B.F.A. The B.F.A. senior exhibition requirement must be completed while enrolled in ART 401 Senior Seminar in Studio Art.

* See specific requirements and recommendations in your area of concentration.
** Can be met by one of the following: ART 400 Internship in the Visual Arts, ART 407 Independent Study, ART 408 Advanced Problems, or approved course within discipline, including summer course offerings, Haystack School of Crafts courses, or ART 412 Topics in Studio Arts.


## Concentration Requirements and/or Recommended Courses

Each concentration has additional requirements or course recommendations as follows:

Ceramics: ART 351 Intermediate Drawing I and ART 352 Intermediate Drawing II are both required.

Digital Art: ART 271 Introduction to Photography is required and ART 382 Experimental Printmaking is recommended. ARH 327 Modern Art and ARH 328 Contemporary Art are recommended.

Drawing: Recommended upper-level art history courses are ARH 328 Contemporary Art; ARH 327 Modern Art and/or ARH 329 Asian Art; or any ARH non-Western Art.

Painting: ART 351 Intermediate Drawing I and ART 352 Intermediate Drawing II are both required; recommended upper-level art history courses are ARH 323 Renaissance Art or ARH 321 Classical Art; and ARH 327 Modern Art or ARH 326 Nineteenth-Century European Art.

Photography: Required studio courses in addition to the photography sequence are: ART 221 Introduction to Digital Art; ART 281 or ART 282 Introduction to Printmaking; and ART 382 Experimental Printmaking. Recommended upper-level art history courses: ARH 318 History of Photography, ARH 327 Modern Art or ARH 328 Contemporary Art.

Printmaking: ART 221 Introduction to Digital Art is the required concentration elective. Additionally, both ART 281 Introduction to Printmaking: Intaglio and Relief and ART 282 Introduction to Printmaking: Lithography and Screenprinting, are required. Recommended remaining studio electives should constitute a focused sequence in any other concentration that relates to the student's studio practice. Recommended art history courses are ARH 310 Cross-Cultural Perspectives and ARH 328 Contemporary Art .

Sculpture: Recommended studio course is ART 271 Introduction to Photography; recommended upper-level art history is ARH 329 Asian Art or any ARH nonWestern art, and ARH 328 Contemporary Art. Note: ART 249 2-D and 3-D Figure Study (offered summers only) also satisfies the required elective in the sculpture concentration.

## Bachelor of Fine Arts with a Concentration in Art Education

The bachelor of fine arts with a concentration in art education offers an in-depth studio experience as well as a professional course of study in art education leading to teacher certification in Maine. The program is guided by a conceptual framework that proposes that individuals need to be prepared for work in an increasingly complex and culturally diverse world, and that such work is best done through collaboration and reflective inquiry.

For those who want certification to teach art in Maine and who already have a B.A., B.F.A., or M.F.A. in studio art, we offer our B.F.A. with a concentration in art education. For most people this means taking the 30 -credit professional education sequence to fulfill all state requirements. This can usually be completed in two years. Field experiences and student teaching placement schools are located in southern Maine. For more information, contact the Department.

The minimum number of credits (exclusive of the University's Core curriculum) required for this degree is 90 . The 90 credits include 9 hours of electives in art, art history, and design (recommended).

Art Foundation (18 credits)

| ARH | 111 G | Art History: Prehistoric through Medieval |
| :--- | :--- | :--- |
| ARH | 112 G | Art History: Renaissance to the Present |
| ART | 141 F | 2-D Design |
| ART | 142 | 3-D Design |
| ART | 151 F | Drawing I |
| ART | 152 | Drawing II |

Completion of the senior exhibition is required for the B.F.A. with a concentration in art education.

Upper Level Art History Requirements (6 credits)
ARH 200- or 300-level Art History Elective
ARH 411 Philosophy of Art (or PHI 220)
Art Studio Requirements ( 21 credits)

| ART | 221 | Introduction to Digital Art |
| :--- | :--- | :--- |
| ART | 231 | Introduction to Ceramics |
| ART | 251 | Drawing |
| ART | 261 | Introduction to Painting |
| ART | 271 | Introduction to Photography |
| ART | 281 | Introduction to Printmaking |
| ART | 291 | Introduction to Sculpture |

Art Studio Concentration Requirements ( 9 credits)
This may be taken in either digital art, drawing, ceramics, painting, photography, printmaking, or sculpture.

| ART | 3XX | Intermediate I |
| :--- | :--- | :--- |
| ART | 3XX | Intermediate II |
| ART | 4XX | Advanced I |

Professional Education Requirements ( 27 credits excluding HRD 200J)
EDU 200 Education in the United States
or
EDU 210 Theoretical Foundations of Learning
HRD 200J Human Growth and Development**
AED 221 Practicum in Art Education
AED 321 Principles and Procedures in Art Education*
EDU 335 Teaching Children with Exceptional Needs
AED 421 Seminar in Art Education*
EDU 324 Student Teaching I*
EDU 324 Student Teaching II*
Permission of the instructor and passing scores (determined by the Maine Department of Education each year) on the PRAXIS I test are required prior to student teaching and continuation in the program. A passing score on PRAXIS II (a state requirement for teacher certification) is required before graduation and recommendation for certification. Students must maintain a 3.0 minimum grade point average (GPA) in art studio, art history, and the art education sequence courses as well as a 2.5 minimum GPA overall.
*A 3.0 minimum grade point average (GPA) in art studio, art history, and art education sequence courses must be maintained to register for AED 321, EDU 324, AED 421, EDU 335, and to graduate from the program.
**HRD 200J counts as a University Core requirement and a Professional Education requirement.
The Teacher Education Council, comprising deans, department chairs, faculty, and school representatives from all programs offering initial teacher preparation, is the governing body for program review and evaluation for all initial level teacher education programs at USM.

Bachelor of Arts (B.A.)
The B.A. in studio art is a four-year liberal arts degree in studio art. The program is meant to give a substantial studio experience with a significant number of non-art electives. Students complete the art foundations and then progress into a specific studio concentration area. This degree encourages students to take a broad range of courses in conjunction with disciplines outside of the visual arts. Up to 60 ART studio credits will be accepted toward the degree.

The minimum number of credits (exclusive of the University's Core curriculum and electives) required for the major: 48.

Art Foundation (18 credits)
ARH 111G Art History: Prehistoric through Medieval
ARH 112G Art History: Renaissance to the Present
ART 141F 2-D Design
ART 142 3-D Design
ART 151F Drawing I
ART 152 Drawing II
Art History Requirements (9 credits)
ARH 200- or 300-level art history elective
ARH 200- or 300-level art history elective
ARH 411 Philosophy of Art (or PHI 220)
Studio Art Requirement ( 21 credits, including three 200-level studio courses from ART 221, 231, 251, 261, 271, 281, 282, or 291, and two 300-level studio courses within one discipline)

No more than 60 credit hours with ART designation may be used to fulfill 120 credit-hours degree requirement

## B.A. in Art with a Concentration in Art and Entrepreneurial Studies

The B.A. in Studio Art and Entrepreneurial Studies is an in-depth studio experience with courses in small business and entrepreneurship. It involves a combination of art and art history courses with a required studio concentration, a cluster of business courses, a digital-based course, and an internship experience with creative professionals. Within the general electives, students may choose to incorporate a minor or select additional studio (ART) or art history (ARH) courses. This degree is for students who wish to pursue a career in the creative arts in the commercial or nonprofit sectors. It is intended to offer students a greater ability to engage in creative arts sector employment and/or independent small business development.

The minimum number of credits (exclusive of the University's Core curriculum and electives) required for the major: 48

Art Foundation (18 credits)

| ARH | 111 G | Art History: Prehistoric through Medieval |
| :--- | :--- | :--- |
| ARH | 112 G | Art History: Renaissance to the Present |
| ART | 141 F | 2-D Design |
| ART | 142 | 3-D Design |
| ART | 151 F | Drawing I |
| ART | 152 | Drawing II |
| Ar History Requirements (9 credits) |  |  |
| ARH | $200-$ or 300 -level art history elective |  |
| ARH | 200 - or 300 -level art history elective |  |
| ARH | 411 | Philosophy of Art (or PHI 220) |

Studio Art Requirement ( 30 credits, including four 200-level studio courses from ART 221, 231, 251, 261, 271, 281 or 282, or 291; two 300-level studio courses and one 400-level course within one discipline; and three to six credits from ART 400 and/or ART 408 with the remaining six credits in studio electives)

Business Requirement ( 12 credits, not exclusive of ECO 100J and ECO 102J, including three credits from each of the following groups: BUS 101 or BUS 200; ACC 110; BUS 260 or BUS 165J; and BUS 385)

Technology Requirement ( 3 credits from ITT 181, ITT 231, ITT 241, ITT 343, ITT 482, or ABU 180)

No more than 60 credit hours with ART designation may be used to fulfill 120 credit-hours degree requirement.

## B.A. in Art with a Concentration in Art History

To become a matriculated art major with a concentration in art history, the student must apply for admission to the program during the semester the foundation courses are being completed or the semester after their completion. No portfolio is required. The student may obtain the appropriate form in the Art Department office

To receive credit toward the major, the student must maintain at least a 2.5 average in art history courses. Students are encouraged to acquire a reading knowledge of a foreign language, preferably French or German.

The minimum number of credits required for the major: 45 .
Art Foundation (18 credits)
ARH 111G Art History: Prehistoric through Medieval
ARH 112G Art History: Renaissance to the Present
ART 141F 2-D Design
ART 142 3-D Design
ART 151F Drawing I
ART 152 Drawing II
Upper Level Requirements ( 30 credits)
ARH 321, 322,
or 323 Classical, Medieval, or Renaissance Art
ARH 325, 326,
327 , or
328 19th- or 20th-Century Western Art
ARH 310 or
329 Non-Western Art
ARH 410 Seminar in Art History (May substitute ARH 412 Topics in Art History with permission of the Art Department Chair.)
ARH 411 Philosophy of Art (or PHI 220)
ART 400 Internship in the Visual Arts
Art History elective (upper level course) (3 credits)
Approved upper level electives from one or more of the following areas: Art History, History, Anthropology, Literature, Classics. Students should consult with their art history advisor to select appropriate courses. (9 credits)

## Minor in Art History

The minimum number of art history credits (exclusive of the University's Core curriculum) required for the minor: 21.

The minor consists of ARH 111G, ARH 112G, and ARH 411, and 12 credits of art history courses (noted by ARH prefix) above the 100 level including: a.) at least one of the following areas: Classical, Medieval, Renaissance; and b.) at least one in either of the following areas: 19th-century Western art, 20th-century Western art or history of photography.

## Minor in Studio Art

The minimum number of art and art history credits (exclusive of the University's Core curriculum) required for the minor: 21.

Studio Art Foundation Requirements (6 credits)
Select two courses from the following:

| ART | 141 F | 2-D Design |
| :--- | :--- | :--- |
| ART | 151 F | Drawing I |
| ART | 142 | 3-D Design |
| ART | 152 | Drawing II |

*Each studio discipline has specific prerequisites for its 200-level course: Ceramics and Sculpture: ART 142, ART 151F; Digital Arts: any two from ART 141F, ART 142, ART 151F, or ART 152; Drawing and Painting: ART 151F, ART 152; Photography and Printmaking: ART 141F, ART 151F.

Art History Requirement (3 credits)
ARH 112G Art History: Renaissance to the Present
Introduction to Studio Discipline Course (3 credits)
Select one course from the following:

| ART | 221 | Introduction to Digital Art |
| :--- | :--- | :--- |
| ART | 231 | Introduction to Ceramics |
| ART | 251 | Drawing |

ART 261 Introduction to Painting
ART 271 Introduction to Photography
ART 281 Introduction to Printmaking
ART 291 Introduction to Sculpture
Upper-Level Studio Courses (9 credits)
Do TWO 300-level studio courses from the studio discipline for which the student has completed a 200 -level introductory course.

Do ONE 400-level studio course from the selected studio discipline.

## Certificate of Undergraduate Study in Art Foundations

The Art Department offers a certificate of accomplishment for the successful completion of 18 credit hours of study in the foundations of studio art and art history. Upon completion students will have acquired a fundamental understanding of the study and practice of visual art. The program comprises courses in two-dimensional design, three-dimensional design, drawing, and art history. Students will be able to apply this certificate toward further degree studies in art, or toward any endeavor or profession that would require or be enhanced by the basic skills in, and the understanding and appreciation of, the visual arts.

This certificate program requires the successful completion of these courses:

| ARH 111G | Art History: Prehistoric through Medieval |
| :--- | :--- |
| ARH 112G | Renaissance to Modern Art History |
| ART 141F | 2-D Design |
| ART 142 | 3-D Design |
| ART 151F | Drawing I |
| ART 152 | Drawing II |

This program, while administered through Weekend College, would pertain to all students who complete their foundation studies in art. These courses will be offered in both Monday through Friday time slots and through Weekend College.

## Course Fees

## Transfer Students

A course fee is assessed in ceramics, digital art and all lecture courses, design, drawing, painting, photography, printmaking, and sculpture courses.

To receive a B.F.A. degree in art from USM, a student transferring to USM must complete at least two 3-credit studio courses in their area of concentration and one 3-credit art history course at USM. To receive a B.A. degree in studio art from USM, a transfer student must complete at USM at least two 3-credit studio courses within one discipline and one 3-credit art history course.

## ART 101G Approaches to Art

Selected experiences using original works, lecture, slides, films, and other means to expose the student to the significance of the visual arts in human history. The aim of the course is to involve students in direct experiences affecting their own perception of visual form.

Cr 3.

## ART 277 Film as Image and Idea

An approach to the appreciation of motion pictures and allied arts through the understanding and analysis of the context, range, and resources of film. Course includes the development of motion pictures
and principles of film evaluation. Prerequisite: permission of the instructor.

Cr 3.

## ART 416 Gallery Practices

A practical introduction to everyday operations and possible careers in museums and galleries as well as creative exploration of the blurring of boundaries between museum and contemporary art practices. The course includes hands-on experience, field trips, readings, and discussions. Students will develop an art exhibition proposal and participate in an exhibit that creatively employs gallery practices such as curating, archiving, and collecting. Cr 3 .

## Art History

ARH prefix designates an art history course. 100level art history courses begin to develop skills that students will need to pursue study in the discipline. Students will learn strategies for interpreting visual art and for understanding and writing formal academic prose.

## ARH 110G Visual Environment

This course focuses on understanding, designing, and interpreting the visual environment through analysis of visual forms, hands-on exercises, and in-depth investigation of works in their cultural context. The course covers the power of images, the role of illusion, and the interpretation of visual forms in daily life. Students will learn how to analyze effective uses of color, shapes, and spatial relationships in examples such as street signs, fine art, meeting spaces, city planning, bar graphs, and photographs.

## ARH 111G Art History: Prehistoric through Medieval

Examination and discussion of the painting, sculpture, and architecture from prehistoric cultures to the late Middle Ages. The course emphasizes the relationship of the visual arts to social, political, religious, and cultural trends, and introduces students to various methods of art-historical interpretation. Prerequisite: Core Area "C." Preference given candidates for matriculation in the Department of Art, or those with permission of the instructor Cr 3.

## ARH 112G Art History: Renaissance to the Present

Examination and discussion of the painting, sculpture, and architecture from the Renaissance to the present. The course emphasizes the relationship of the visual arts to social, political, religious, and cultural trends and introduces students to various methods of art-historical interpretation. Prerequisite: Core Area "C." Preference given candidates for matriculation in the Department of Art, or those with permission of the instructor.

Cr 3 .
Upper-level art history courses further develop students' skills of art historical analysis. Students will continue to work on formal academic prose and complete at least 15 total pages of written work during the semester. Students will also learn research
sources and methods; become familiar with varied art historical writings from period documents, articles, and scholarly books; tackle the issue of interpretation and learn about recent approaches to the field. Whenever possible, students will study original art works.

## ARH 310 Art History: Cross-Cultural Perspectives

The course covers global issues in art history. Major topic areas include a) how art conveys cultural values and biases, b) why foreign styles are adopted, c) why different values produce different forms. Prerequisite: Core Area "C."

Cr 3.

## ARH 311 Gender Identity and Modern Art

This course examines the construction of gender and sexuality in Western visual arts from the late eighteenth century to the present. Students will analyze both the art and art criticism of the period, focusing on the work of female, feminist, and gay artists.

Cr 3.

## ARH 318 History of Photography

This course studies photography from its invention in the 19th century to the present day. It considers photography from historical, theoretical, social, and artistic perspectives. Prerequisite: ARH 112 or permission of the instructor.

Cr 3.
ARH 321 Classical Art
A survey of ancient art and architecture with special emphasis on the key monuments of Greek and Roman art and their influence on later artistic periods. This course is equivalent to CLA 321. Prerequisite: ARH 111G.

Cr 3 .

## ARH 322 Medieval Art

A survey of the various medieval styles from the Early Christian through the Gothic period with a special section on Islamic art. The relationship of culture to art will be examined for architecture, painting, and sculpture. Prerequisite: ARH 111G. Cr 3.

## ARH 323 Renaissance Art

An examination of the art and architecture of the fifteenth and sixteenth centuries both north and south of the Alps. Emphasis will be given to the cultural traditions, historical events and theoretical founda-
tions that contributed to the development of Renaissance art. Prerequisite: ARH 112G. Cr 3.

## ARH 324 Seventeenth- and Eighteenth-Century Art

The course will survey the Baroque and Rococo movements in painting, sculpture, and architecture. The impact of the Academies and academic art and the Enlightenment will be given special attention. Prerequisite: ARH 112G.

Cr 3.

## ARH 325 American Art

Survey of North American painting, sculpture, and architecture from the sixteenth century to 1940. The art will be examined in the context of aesthetic and cultural ideals, historical events, and multiculturalism. Field trips to local museums and architectural sites. Prerequisite: none.

## ARH 326 Nineteenth-Century European Art

Examination and discussion of European painting, sculpture, and architecture from neoclassicism through post-impressionism (1790-1900). The course will focus on the relationship between the visual arts and the political, social, and aesthetic revolutions of the century. Prerequisite: ARH 112G or permission of the instructor.

Cr 3.

## ARH 327 Modern Art

Examination of modern art and artistic movements from the end of the 19th century to World War II. Emphasis will be placed on understanding the history and theories of modern art in social and cultural context. Prerequisite: ARH 112G.

Cr 3.

## ARH 328 Contemporary Art

Examination of developments in the visual arts from World War II to the present. Prerequisite: ARH 112G.

Cr 3.

## ARH 329 Asian Art

A survey of some major styles in Asian art (India, China, Japan). The course emphasizes the cultural and religious factors that influenced the art. Cr 3.

## ARH 410 Seminar in Art History

This course is a requirement for students concentrating in art history. Designed for the advanced student, the course probes different methodological and theoretical approaches to the study and interpretation of the visual arts. Students will examine the writings of pioneers in the field, long-standing art historical methods, and the "new" art history. This course is also a research seminar. Prerequisite: permission of the instructor. Cr 3.

## ARH 411 Philosophy of Art

Examination of the aesthetic theories of philosophers, artists, writers, and critics that form the basis for understanding the fine arts. Readings and discussion of texts from ancient to modern times. Prerequisite: senior art majors and permission of the instructor.

Cr 3 .

## ARH 412 Topics in Art History

A seminar on a selected topic in art history that will be the focus of in-depth research and discussion. Prerequisite: permission of the instructor. Cr 3.

## ARH 418 Independent Study in Art History

An opportunity for the student who has demonstrated competence in a specific area of study to work independently with scheduled tutoring from a faculty member of the student's choice. Prerequisites: permission of instructor and Art Department chair. Cr 1 to 6 .
introduction to mixed media. Increased emphasis on expressive and conceptual approaches to drawing. Prerequisite: ART 151F.

Cr 3 .

## ART 221 Introduction to Digital Art

This course will address aesthetic, historical, and theoretical perspectives on digital media in the arts and contemporary culture. The students will use industry-standard software to create and process digital imagery. Prerequisite: art foundation or permission of the instructor.

Cr 3.

## ART 231 Introduction to Ceramics

An introduction to methods and processes of clay forming, including modeling, press molding, handbuilding, and the potter's wheel. Emphasis on form and texture, with aspects of glaze composition and firing procedures. Prerequisite: art foundation or permission of the instructor. Cr 3.

## ART 241 Introduction to The Visual Book

This course will use the visual artist's book as a medium for personal expression. Students will
incorporate 2D and 3D skills to create a collection of unique books. A variety of traditional and nontraditional books, arts, and techniques will be used to develop both form and content. Prerequisite: art foundation or permission of instructor.

## ART 249 2-D and 3-D Figure Study

A studio course in the study of the human figure, including drawing, modeling, and readings in artistic anatomy, supplemented by historical study of figurative art. (Offered summers only.) Prerequisite: art foundation or permission of instructor. Cr 3 .

## ART 251 Drawing

Extensive combining of media. Stress on role of images, both object and model. Prerequisite: art foundation or permission of the instructor. Cr 3.

## ART 259 Landscape Drawing

This course will concentrate on drawing the landscape at various Maine locations. Assigned problems will focus on aspects of the following: pictorial composition and design, analysis of landscape forms and structures, and methods for creating the illusion of outdoor light and space. A variety of both wet and dry media will be used. The course will include daily critiques, illustrated talks using original works as well as slides of masters, and museum visits. (Offered summers only.) Prerequisite: art foundation or permission of instructor. Cr 3.

## ART 261 Introduction to Painting

An introduction to the basics of oil painting. Students are introduced to the materials and techniques of the medium, including supports and grounds, binders and dilutants, and pigments. Work is primarily from observation and focuses on the acquisition of technical skills to provide a solid foundation for continuing studies. Prerequisite: art foundation or permission of instructor.

Cr 3 .

## ART 269 Landscape Painting

An investigation of the painting process as related to visual perception of the natural environment. This course will take place outdoors at Wolfe Neck Farm. (Offered summers only.) Prerequisite: art foundation or permission of instructor.

Cr 3.

## ART 271 Introduction to Photography

An introduction to the fundamentals of black and white photography. Students will learn how to use a manual camera and how to develop and print film. These technical skills will be taught in conjunction with an introduction to the historical, stylistic, and visual communication characteristics of photography. Prerequisite: art foundation or permission of instructor.

Cr 3.

## ART 281 Introduction to Printmaking: Intaglio and Relief

This course introduces intaglio and relief printmaking techniques. The class includes traditional dry and wet processes for intaglio such as drypoint, engrav-
ing, etching, and aquatint, and addresses color printing methods for linoleum and woodcut. Prerequisite: art foundation or permission of instructor. Cr 3.

## ART 282 Introduction to Printmaking: Lithography and Screenprinting

This course introduces planographic methods of printing. Students will explore traditional lithography on stone as well as direct hand methods and photomechanical methods for screenprinting. Prerequisite: art foundation or permission of instructor.

Cr 3.

## ART 291 Introduction to Sculpture

An introductory course directed toward developing awareness of basic elements of sculptural form and the discipline of making objects. Prerequisite: art foundation or permission of instructor.

Cr 3.

## ART 321 Digital Video Applications

This course provides an in-depth introduction to capturing and editing digital video. Students will view and analyze historical and contemporary film and video projects to gain an understanding of timebased media. Prerequisite: ART $221 . \quad$ Cr 3.

## ART 322 Multi-Media Applications

This course will introduce the tools and methods for creating interactive projects incorporating still images, animation, video, sound, and text. Readings concerning aesthetic, theoretical, and historical perspectives on digital media will be discussed. Prerequisite: ART 221.

Cr 3 .

## ART 323 Web Art: Concepts and Construction

Students will study the conceptual and structural framework for Web site development and Internet art. Alternatives to the conventional Web page and unique approaches to Web dynamics will be explored. The course will provide a working knowledge of hypertext markup language (HTML) and will address new developments in Web authoring. Interface design and the social implications of Internet art will be considered. Prerequisite: ART 221.

Cr 3.

## ART 331 Intermediate Ceramics I

This course extends the basic processes and methods of forming clay into teapot fundamentals, glaze study, and figure work. Students keep accurate records of their own progress and development. Prerequisite: ART 231.

Cr 3.

## ART 332 Intermediate Ceramics II

Students combine several methods of forming clay in one work and explore the complex use of nature and design. Students engage in historical research and presentation, keep accurate records of their development, and help fire kilns. Prerequisite: ART 331.

Cr 3.

## ART 351/352 Intermediate Drawing

Continued drawing with emphasis on independent direction. Prerequisite: ART 251.

Cr 3/3.

## ART 356 The Visual Culture of Latvia and Northern Europe

A studio-based academic experience in Riga and the Latvian countryside, with on-site lectures by resident artists and scholars. The course encompasses the history of northern Europe, art history of Latvia, history of architecture of Riga, and contemporary art in Latvia. It includes studio-based instruction at the Latvian National Academy of Art. Only offered during Summer Session. Prerequisite: art foundation or permission of instructor.

Cr 6.

## ART 361 Intermediate Painting I

Continued investigation of the painting process with refinement in materials and techniques, direct and indirect painting, and studies in color (opaque and transparent). Work is directed at control of spatial presentation, introduction to figure study, and acquiring a repertoire of diverse mark-making. Prerequisite: ART 261.

Cr 3.

## ART 362 Intermediate Painting II

Further investigation of the painting process with emphasis on defining figure-ground relationships, compositional clarity, and spatial complexity. Work with the figure focuses on the use of lighting and other compositional devices. Students are introduced to a variety of painting media and are encouraged to make the transition to more self-directed study. Prerequisite: ART 361.

Cr 3 .

## ART 371 Intermediate Photography

Refinement of the black and white technical skills, aesthetic decision-making language, contemporary strategies, and critical analysis of fine art photography. Medium and large format cameras and alternative processes are utilized. Distinctions between photographic series and sequences are studied. Presentations of historical and contemporary works provide examples of distinction and inspiration. Prerequisite: ART 271.

Cr 3.

## ART 372 Color Photography

This course introduces students to the processes, applications, and theory of color photography as an artistic medium. It covers processing, printing methods, color theory, and color management. Students are introduced to image editing software for color correction, image manipulation, and digital output. A series of assignments introduce students to the formal issues presented by color as an element of the medium, as well as analyze visual content in the broader project of photographic image-making. Prerequisites: ART 221 and ART 271.

Cr 3.

## ART 381 Special Topics in Printmaking

This course addresses historical approaches to, as well as emerging contemporary strategies in, the studio practice of printmaking. Students will be engaged in the exploration of thematic social and political concepts pertaining to the idea of the multiple. Prerequisites: ART 221, and ART 281 or ART 282.

Cr 3.

## ART 382 Experimental Printmaking

This course introduces methods of printmaking that are experimental, photographic, and digital in nature. Students will learn contemporary approaches to topics such as photogravure and duotones through direct and photomechanical methods for intaglio and lithography. Prerequisites: ART 221, and ART 281 or ART 282.

Cr 3.

## ART 391/392 Intermediate Sculpture

The theory and practice of sculptural composition using a variety of techniques with traditional and new materials. Prerequisite: ART 291. Cr 3/3.

## ART 400 Internship in the Visual Arts

The purpose of the internship is to allow students to work in an area that pertains to the visual arts and is related to their own activities and career intentions. Possibilities for internships include, but are not limited to, galleries, arts-related businesses, museums, practicing artists, scholars, nonprofit organizations, and cultural institutions. Pass-fail only.

## ART 401 Senior Seminar in Studio Art

Designed for B.F.A. graduating senior students, this course will provide a cross-disciplinary critique of the student's project and will culminate in a senior exhibition. Questions regarding current theoretical practices and strategies will be examined through readings, slides, and visiting artist lectures in order to provide a basis for understanding the student's artistic choices. Prerequisite: senior status/B.F.A. degree students.

Cr 3.

## ART 407 Advanced Problems in Art

An opportunity for the student to do advanced work in the discipline of his/her choice, culminating in a related project. Prerequisites: permission of instructor and Art Department chair. $\quad$ Cr 1 to 6.

## ART 408 Independent Study in Art

An opportunity for the student who has demonstrated competence in a specific area of study to work independently with scheduled tutoring from a faculty member of the student's choice. Prerequisites: permission of instructor and Art Department chair. Cr 1 to 6 .

## ART 412 Topics in Studio Art

A course on a selected topic in the studio arts. To be offered at least once each year. Prerequisite: permission of the instructor.

Cr 3.

## ART 420 Advanced Studio in Digital Art I

Students will work with the instructor to develop a digital art project based upon their interests and goals as a digital artist. Aesthetic, theoretical, and historical issues related to digital art and electronic media will be discussed. Prerequisites: ART 221 and at least one 300-level digital art course. Cr 3.

## ART 421 Advanced Studio in Digital Art II

Students will further refine the skills acquired in Advanced Studio in Digital Art I. A semester-long
capstone experience will be designed and completed by each student. Prerequisite: ART 420. Cr 3.

## ART 431 Advanced Ceramics I

Students work in series, research and present information on a ceramic artist, and perform tests and experiments in forming clay, firing kilns, and glazing. Students are expected to fire all kilns, mix glazes, and keep accurate records of their development. Prerequisite: ART 332.

Cr 3.

## ART 432 Advanced Ceramics II

Students focus on the evolution of earlier studies into a series of work that may be used for the senior exhibition. Students research and present information about a ceramic artist, load and fire all kilns, mix glazes, and are encouraged to enter competitions and arrange a portfolio. Prerequisite: ART 431. Cr 3.

## ART 451/452 Advanced Drawing

Making personal and complete drawings and series of drawings. Emphasis on individual concepts and personal expression. Prerequisites: ART 351 and 352.

Cr 3/3.

## ART 461 Advanced Painting I

An investigation of the painting process with emphasis on self-directed study, compositional complexity, and historical continuity. Students are encouraged to work in multiples or series, to develop variations on a theme, and to explore societal issues and philosophical themes. Prerequisite: ART 362.

Cr 3 .

## ART 462 Advanced Painting II

Continued investigation of the painting process to express personal themes in the context of a senior exhibition. Emphasis is on individual concepts and personal expression. Prerequisite: ART 461. Cr 3.

## ART 471 Advanced Photography I

Students will develop a photographic project that emphasizes their interests and goals as visual artists. Individual and group critiques will explore and evaluate students' strategies and choices in respect to intention, investigation, discovery, judgment, and

## Art Education

## AED 221 Practicum in Art Education

An introduction to art education theories and processes through readings, writings, discussion, observation, and clinical experiences with children. The examination of the relationship between artmaking and learning is relevant to prospective art and classroom teachers. Prerequisites: sophomore standing or above and art foundation.

Cr 3.

## AED 321 Principles and Procedures in Art Education

History and philosophy of art education, theories of child art, relationship of goals to art education strate-
final production of imagery. Readings, lectures, and presentations will further inform student decisions and directions. Prerequisite: ART 372 or permission of instructor.

Cr 3.

## ART 472 Advanced Photography II

Students will further refine the skills acquired in the first semester of advanced photography A semesterlong project will be designed and completed by each student. Prerequisite: ART 471.

Cr 3.

## ART 481 Advanced Printmaking I

This class is intended for students who are proficient in two or more methods of printmaking (relief, intaglio, lithography, screenprinting, or experimental methods). Students will refine their technical skills while pursuing in-depth investigation of subject matter and imagery. Knowledge and practice of image-making as both an aesthetic and conceptual activity will be addressed. Prerequisite: permission of the instructor, or two courses from ART 281, ART 282, ART 381, and ART 382.

Cr 3.

## ART 482 Advanced Printmaking II

This class is for the student who can work proficiently in two or more methods of printmaking. Students are expected to develop their imagery based on well-conceived ideas, which can be successfully expressed in one or more printing techniques. Experimentation with new techniques is encouraged, as is an exploration of combining several methods of printmaking effectively in one print. Students develop and pursue independent portfolio projects. Prerequisite: ART 481.

Cr 3.

## ART 491/492 Advanced Sculpture

Continuation of Intermediate Sculpture with emphasis on the pursuit of personal imagery. Prerequisites: ART 391 and $392 . \quad$ Cr 3/3.

## ART Independent Study Term

An opportunity for the student who has demonstrated competence and exceptional independence in a specific area of study to work with scheduled supervision from a faculty member of the student's choice. Prerequisites: permission of the Department of Art and the dean of the College. Cr 12-15.
gies, development of a workable set of beliefs about art education through readings, writings, discussion, observation, interview, and field experiences. Intended for the art education major. Prerequisites: AED 221 and art foundation.

Cr 3.

## AED 407 Advanced Problems in Art Education

An opportunity for the student to do advanced work in art education related problems. A total of 6 credits may be taken. Prerequisites: completion of the sequence of courses in the related discipline and permission of the instructor and Art Department chair.

Cr 1 to 6.

## AED 421 Seminar in Art Education

This seminar examines art curriculum design and evaluation. Critical issues in art education for the emerging art education professional today are explored through discussion, writings, and readings. This course is to be taken while student teaching. Prerequisite: AED 321.

Cr 3 .

## AED 428 Independent Study in Art Education

 An opportunity for the student who has demonstrated competence in a specific area of study to work independently, with scheduled tutoring from a faculty member of the student's choice. Prerequisites:permission of the instructor and Art Department chair. Cr 1 to 6.

## EDU 324 Student Teaching

The student teaching year consists of two semesters. During the fall semester, students are in an elementary (I) school half-time for eight weeks and in a secondary school (II) half-time for the remaining eight weeks. During the spring semester, experiences are in the same schools full-time for eight weeks each. Students are under direct supervision of supervising teachers and a University supervisor. Cr 12.

## Biological Sciences

Chair of the Department: Christine Maher, 201 Science Building, Portland Health Professions Advisor: Patricia M. O'Mahoney-Damon, 225 Science Building, Portland; Professors: Gainey, Mazurkiewicz, Najarian, Weber; Associate Professors: Champlin, Knight, Maher, Moore, O'Mahoney-Damon, Theodose, Walker; Assistant Professor: Currie; Adjunct Professors: Evers, Incze, Ng

A four-year program leading to a B.S. in biology is offered and includes four options: biology, human biology, biotechnology, and ecology. All programs of study provide students with a liberal arts education emphasizing the sciences. The required courses in the biology specialization expose students to an examination of life from the molecular to the community level. The required courses in the biotechnology specialization emphasize cell and molecular biology. Other biology courses may be elected to suit individual interests and needs. The required courses in chemistry, mathematics, and physics reflect the interdisciplinary status of the biological sciences. Graduates of these programs have found careers in biological and medical research laboratories, biotechnology companies, and field biology, or have furthered their education by entering graduate medical, dental, optometry, veterinary, and law schools, as well as schools for allied health professions. Additional information about the Biological Sciences Department can be found at www.usm.maine.edu/bio.

## Pre-professional Students

Almost every American school of medicine, veterinary medicine, and dentistry requires for admission a baccalaureate degree (major optional), two years of biology, two years of chemistry, one year of physics, a course in calculus, satisfactory performance on a national professional aptitude test, and a recommendation from a committee at the baccalaureate institution. At this campus, the Health Professions Pre-professional Evaluation Committee comprises faculty from the Departments of Biology, Chemistry, and Physics and is responsible for evaluating, comparing, and recommending students. For further information contact Patricia O'MahoneyDamon, 225 Science Building, Portland.

## Pre-pharmacy Program

A two-year, non-degree program of study is offered to prepare students to apply to a four-year doctoral program in pharmacy (a $2+4$ program). Most schools and colleges of pharmacy require $60-75$ credits in their two-year pre-pharmacy phase, depending on the number of general education credits required. Individual programs vary in the general education courses they require, e.g., economics, social science, humanities, and fine arts, so students should consult those programs accordingly. The pre-pharmacy concentration is a time-intensive program that students will need to commit to upon entering the University. Students are encouraged to take summer courses to reduce the number of credits taken each semester. If students choose not to take summer courses, they should consider extending the program to three years. If they do well in this program of study, they will be competitive with students from other universities applying for entry into professional pharmacy programs. If students decide not to transfer after two years, they will be well along the path toward earning a B.S. in biology degree. For further information contact Patricia O'Mahoney-Damon, 225 Science Building, Portland.

## Post-Baccalaureate Pre-Medical Certificate

This certificate program is designed for students who already have graduated from college with a baccalaureate degree and who seek to fulfill the science course requirements for admission to schools of medicine or dentistry or to physician assistant programs.

## Post-Baccalaureate Pre-Veterinary Certificate

This certificate program is designed for students who already have graduated from college with a baccalaureate degree and who seek to fulfill the science course requirements for admission to schools of veterinary medicine.

## Programs and Requirements

## Lewiston-Auburn College Courses

The following Lewiston-Auburn College courses fulfill the corresponding prerequisite requirements in the Department of Biological Sciences: SCI 105K $=$ BIO 105 K, SCI $106 \mathrm{~K}=$ BIO 106 K , SCI $107=$ BIO 107 , SCI $170=$ BIO 111 , SCI $171=$ BIO 112, SCI $172=$ BIO 211, and SCI $173=$ BIO 212.

Bachelor of Science: Biology
The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 73. A grade of C - or higher is required for all courses listed below. All of the following are required:

| BIO | $105 \mathrm{~K}, 106 \mathrm{~K}$ | Biological Principles I: Cellular Biology and <br> Laboratory |
| :--- | :--- | :--- |
| BIO | 107 | Biological Principles II: Evolution, Biodiversity, <br> and Ecology |
| BIO | 109 | Biological Principles III: Functional Biology <br> BIO 201 | | Genetics |
| :--- |
| BIO | $217 \quad$ Evolution $\quad$.

One lecture/laboratory combination from each of the following four areas:
AREA 1: Organismal Biology

| BIO | 205 | Comparative Vertebrate Anatomy |
| :--- | :--- | :--- |
| BIO | 231 | Botany |
| BIO | 291 | Ornithology |
| BIO | 335 | Entomology |
| BIO | 351 | Invertebrate Zoology |
| BIO | 353 W | Vertebrate Zoology |
| BIO | 361,362 | Parasitology and Laboratory |
| BIO | $405 \mathrm{~W}, 406$ | Animal Behavior and Laboratory |

AREA 2: Community-Ecosystem
BIO 331, 332 Ecological Principles and Field Ecology
BIO $337 \quad$ Marine Ecology
BIO 383 Plant Ecology
BIO 415, 416 Microbial Ecology and Laboratory
AREA 3: Functional Biology
BIO 321,322 Neurobiology and Laboratory
BIO $381 \quad$ Plant Physiology
BIO 401,402 General Physiology and Laboratory
BIO 403, 404 Comparative Physiology and Laboratory
AREA 4: Cellular Biology
BIO 305,306W Developmental Biology and Laboratory
BIO 311,312W Microbiology and Laboratory
BIO 409,410 Cell and Molecular Biology and Laboratory
In addition to BIO $105 \mathrm{~K}, 106 \mathrm{~K}, 107,109,201,217$, and one course each from the four stipulated areas, biology majors are required to take either two additional biology lecture courses or one biology lecture/laboratory course, with prefix numbers of 200 or above.

The biology major must also satisfactorily complete all of the following: Chemistry ( 16 credit hours)

CHY $113 \mathrm{~K}, 114 \mathrm{~K}$,
115, 116 Principles of Chemistry I and II and Laboratory
CHY 251, 252
253 Organic Chemistry I and II and Organic Chemistry Laboratory I
Physics (10 credit hours)
PHY $111 \mathrm{~K}, 114 \mathrm{~K}$,
112, 116 Elements of Physics I and II and Laboratory or
PHY $121 \mathrm{~K}, 114 \mathrm{~K}$,
123, 116 General Physics I and II and Laboratory
Mathematics (8 credit hours)
MAT 152D Calculus A
MAT 220 Statistics for the Biological Sciences
In addition, students must fulfill the University Core curriculum requirements.

| Bachelor of Science: Biology with Emphasis in Biotechnology <br> The minimum number of credits (exclusive of the University's Core curriculum) |  |  |
| :---: | :---: | :---: |
|  |  |  |
| required for the emphasis in biotechnology: 80. Students may substitute Problems in |  |  |
| Biology for no more than one of the required AMS courses shown below. Per |  |  |
| University policy, students enrolled in AMS courses pay graduate tuition rates. A grade of C - or higher is required for all courses listed below. |  |  |
| All of the following are required: |  |  |
| Biology (36 credit hours) |  |  |
| BIO | 105K, 106K | Biological Principles I: Cellular Biology and Laboratory |
| BIO |  | Biological Principles II: Evolution, Biodiversity, and Ecology |
|  | 201 | Genetics |
| BIO | 311,312W | Microbiology and Laboratory |
| BIO | 408 | Experimental Genetics |
| BIO | 409,410 | Cell and Molecular Biology and Laboratory or |
| AMS | 530,531 | Molecular Biology and Laboratory |
|  |  | Principles of Immunology |
| AMS | 551 | Immunology Laboratory or Problems in Biology |
| Chemistry (26 credit hours) |  |  |
|  | $113 \mathrm{~K}, 114 \mathrm{~K}$ $115,116$ | Principles of Chemistry I and II and Laboratory |
| CHY | 251,252 | Organic Chemistry I and II and Laboratory |
|  | 253,254 |  |
| CHY | 461,462 | Biochemistry I and II and Laboratory |
|  | 463 |  |
| Physics (10 credit hours) |  |  |
|  | $\begin{aligned} & 111 \mathrm{~K}, 114 \mathrm{~K} \\ & 112 \mathrm{~K}, 116 \end{aligned}$ | Elements of Physics I and II and Laboratory |
|  |  | or |
|  | $\begin{aligned} & 121 \mathrm{~K}, 114 \mathrm{~K} \\ & 123,116 \end{aligned}$ | , General Physics I and II and Laboratory |
| Mathematics (8 credit hours) |  |  |
| MAT | 152D | Calculus A |
| MAT |  | Statistics for the Biological Sciences |
| Bachelor of Science: Biology with Emphasis in Human Biology |  |  |
| The minimum number of credits (exclusive of the University's Core curriculum) required for the emphasis in human biology: 82. A grade of C - or higher is required for all courses listed below. |  |  |
|  |  |  |
| All of the following are required: |  |  |
|  |  |  |
|  | 105K, 106K | Biological Principles I: Cellular Biology and Laboratory |
| BIO | 107 | Biological Principles II: Evolution, Biodiversity, and Ecology |
| BIO | 111, 112 | Human Anatomy and Physiology I and Laboratory |
| BIO | 211,212 | Human Anatomy and Physiology II and Laboratory |
| BIO | 345 | Pathophysiology |
| BIO | 401,402 | General Physiology and Laboratory |
| Choose 15 credits from the following: |  |  |
| BIO | 201 | Genetics |
| BIO | 205 | Comparative Vertebrate Anatomy |
| BIO | 305,306W | Developmental Biology and Laboratory |
| BIO | 311,312W | Microbiology and Laboratory |
| BIO | 321,322 | Neurobiology and Laboratory |
| BIO | 361,362 | Parasitology and Laboratory |
| BIO | 409,410 | Cell and Molecular Biology and Laboratory |
| BIO | 431 | Principles of Immunology |
| The following courses are also required: |  |  |
| Chemistry (23-24 credit hours) |  |  |
| $\begin{array}{ll}\text { CHY } & \text { 113K, 114K Principles of Chemistry } \mathrm{I} \text { and } \mathrm{II} \text { and Laboratory } \\ 115,116\end{array}$ |  |  |

CHY 251, 252
Organic Chemistry I and II and Laboratory
253, 254
CHY 461,462
Biochemistry I and Laboratory
or
CHY 461, 463 Biochemistry I and II
Physics (10 credit hours)
PHY $111 \mathrm{~K}, 114 \mathrm{~K}$, Elements of Physics I and II and Laboratory 112K, 116
or
PHY 121K, 114K, General Physics I and II and Laboratory 123, 116
Mathematics (8 credit hours)
MAT 152D Calculus A
MAT 220 Statistics for the Biological Sciences
Bachelor of Science: Biology with Emphasis in Ecology
The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 78. *All students must take at least three field labs. A grade of C - or higher is required for all courses listed below.

All of the following are required:

| BIO | $105 \mathrm{~K}, 106 \mathrm{~K}$ | Biological Principles I: Cellular Biology and <br> Laboratory <br> Biological Principles II: Evolution, Biodiversity, <br> BIO 107 |
| :--- | :--- | :--- |

Organismal Biology courses: Choose at least 10 credits from the following:
BIO 205 Comparative Vertebrate Anatomy

BIO 231 Botany*
BIO 291 Ornithology*
BIO 311 Microbiology
BIO 312W Microbiology Laboratory
BIO 335 Entomology*
BIO 351 Invertebrate Zoology
BIO 353W Vertebrate Zoology*
BIO 361 Parasitology
BIO 362 Parasitology Laboratory
BIO 381 Plant Physiology
BIO 405W Animal Behavior
BIO 406 Animal Behavior Laboratory*
Ecology courses: Choose at least 10 credits from the following
BIO 332 Field Ecology*

BIO 337 Marine Ecology*
BIO 383 Plant Ecology*
BIO 403 Comparative Animal Physiology
BIO 404 Comparative Animal Physiology Laboratory
BIO 415 Microbial Ecology
BIO 416 Microbial Ecology Laboratory*
ESP 303 Wetlands Ecology*
ESP 341 Limnology*
Additional required courses:
Geography-Anthropology ( 3 credit hours)
GEO 108 Introduction to ArcGIS
Chemistry ( 16 credit hours)
CHY 113K, 114 K , Principles of Chemistry I and II and Laboratory 115, 116
CHY 251, 252 Organic Chemistry I and II and Organic Chemistry 253 Laboratory I


## Non-degree Pre-pharmacy Emphasis

The minimum number of credits required for the pre-pharmacy program, including general education requirements: 79. A grade of C - or higher is required for all courses listed below.

All of the following are required:

| BIO | $105 \mathrm{~K}, 106 \mathrm{~K}$ | Biological Principles I: Cellular Biology and <br> Laboratory |
| :--- | :--- | :--- |
| BIO | 107 | Biological Principles II: Evolution, Biodiversity, <br> and Ecology |
| BIO | 111,112 | Human Anatomy and Physiology I and Laboratory <br> BIO 211,212 | | Human Anatomy and Physiology II and Laboratory |
| :--- |

Chemistry ( 18 credit hours)
CHY $113 \mathrm{~K}, 114 \mathrm{~K}$ Principles of Chemistry I and II and Laboratory 115, 116
CHY 251, 252 Organic Chemistry I and II and Laboratory 253, 254
Physics (10 credit hours)
PHY $111 \mathrm{~K}, 114 \mathrm{~K}$, Elements of Physics I and II and Laboratory 112, 116
Mathematics (8 credit hours)
MAT 152D Calculus A
MAT $220 \quad$ Statistics for the Biological Sciences
Other required courses:

| ENG | 100 C | College Writing |
| :--- | :--- | :--- |
| ENG | 120 H | Introduction to Literature |
| PSY | 101 J | General Psychology I |
| SOC | 100 J | Introduction to Sociology |
| THE | 170 F | Public Speaking |

In addition, students must fulfill an additional 6-9 credits of general education electives, and some programs require three credits of economics.

## Post-Baccalaureate Pre-Medical Certificate

In addition to a baccalaureate degree, all of the following courses or equivalent courses transferred from another institution are required. A grade of C - or higher is required for all courses listed below.

| Biology (19 credit hours) <br> BIO | $105 \mathrm{~K}, 106 \mathrm{~K}$ |
| :---: | :---: | :--- | | Biological Principles I: Cellular Biology and |
| :--- |
| Laboratory |
| BIO |
| Biological Principles II: Evolution, Biodiversity, and |
| Ecology |

And two BIO courses with labs chosen from BIO 201/408, BIO 205, or those numbered 300 or higher

Chemistry (18 credit hours)
CHY 113K, 114 K , Principles of Chemistry I and II and Laboratory 115, 116
CHY 251, 252, Organic Chemistry I and II and Laboratory 253, 254

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Physics (10 credit hours)
    PHY 111K, 114K, Elements of Physics I and II and Laboratory
                112,116
Mathematics (4 credit hours)
    MAT 152D Calculus A
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## Post-Baccalaureate Pre-Veterinary Certificate

In addition to a baccalaureate degree, all of the following courses or equivalent courses transferred from another institution are required. A grade of C - or higher is required for all courses listed below.

| Biology (19 credit hours) |  |  |
| :---: | :--- | :--- |
| BIO | $105 \mathrm{~K}, 106 \mathrm{~K}$ | Biological Principles I: Cellular Biology and |
|  |  | Laboratory <br> Biological Principles II: Evolution, Biodiversity, and <br> BIO 107 |

And one BIO course with lab chosen from BIO 201/408, BIO 205, or those numbered 300 or higher

Chemistry (18 credit hours)
CHY $113 \mathrm{~K}, 114 \mathrm{~K}$, Principles of Chemistry I and II and Laboratory 115, 116
CHY 251, 252, Organic Chemistry I and II and Laboratory 253, 254

Physics (10 credit hours)
PHY $111 \mathrm{~K}, 114 \mathrm{~K}$, Elements of Physics I and II and Laboratory 112, 116

Mathematics (4 credit hours) MAT 152D Calculus A

## Suggested Plans of Study

Because the biology curriculum includes many support courses (chemistry, physics, math) that need to be taken in addition to biology courses, the Department offers suggested plans of study, shown below, for biology majors in the general program, the biotechnology option, the human biology option, or the ecology option and for students in the pre-pharmacy program. There is no guarantee that every course listed will be offered when the student wants the course. Students should consult their academic advisors regularly.

| Biology Degree Plan |  |  |  |
| :---: | :---: | :---: | :---: |
| Year 1 |  |  |  |
| Fall semester |  |  |  |
| BIO | 105K | Biological Principles I: Ce | 3 |
| BIO | 106K | Laboratory Biology | 1.5 |
| CHY | 113K | Principles of Chemistry I | 3 |
| CHY | 114 K | Laboratory Techniques I | 1 |
| ENG | 100C | College Writing | 3 |
| Core curriculum course |  |  | 3 |
|  |  |  | 14.5 |
| Spring semester |  |  |  |
| BIO | 107 | Biological Principles II: Evolution, Biodiversity and |  |
|  |  | Ecology | 4.5 |
| CHY | 115 | Principles of Chemistry II | 3 |
| CHY | 116 | Laboratory Techniques II | 1 |
| MAT | 152D | Calculus A | 4 |
| Core c | urriculu |  | 3 |



Note: Total credits must add up to 120 . Suggested schedule is based on 8 semesters with approximately 15 credits per semester. Summer courses can reduce course load during the year.

| Biotechnology Degree Plan |  |  |  |
| :---: | :---: | :---: | :---: |
| Year 1 |  |  |  |
| Fall semester |  |  |  |
| BIO | 105K | Biological Principles I: Ce | 3 |
| BIO | 106K | Laboratory Biology | 1.5 |
| CHY | 113 K | Principles of Chemistry I | 3 |
| CHY | 114 K | Laboratory Techniques I | 1 |
| ENG | 100C | College Writing | 3 |
| Core curriculum course |  |  | 3 |
|  |  |  | 14.5 |
| Spring semester |  |  |  |
| BIO | 107 | Biological Principles II: Evolution, Biodiversity, and |  |
|  |  | Ecology | 4.5 |
| CHY | 115 | Principles of Chemistry II | 3 |
| CHY | 116 | Laboratory Techniques II | 1 |
| MAT | 152D | Calculus A | 4 |
| Core curriculum course |  |  | 3 |
|  |  |  | 15.5 |


| Year 2 |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall semester |  |  |  |
| BIO | 201 | Genetics | 3 |
| BIO | 408 | Experimental Genetics | 2 |
| CHY | 251 | Organic Chemistry I | 3 |
| CHY | 252 | Organic Chemistry Laboratory I | 2 |
| MAT | 220 | Statistics for the Biological Sciences | 4 |
|  |  |  | 14 |
| Spring semester |  |  |  |
| BIO | 311 | Microbiology | 3 |
| BIO | 312W | Microbiological Laboratory | 2 |
| CHY | 253 | Organic Chemistry II | 3 |
| CHY | 254 | Organic Chemistry Laboratory II | 2 |
| Core curriculum course |  |  | 3 |
|  |  |  | 13 |
| Year 3 |  |  |  |
| Fall semester |  |  |  |
| CHY | 461 | Biochemistry I | 3 |
| CHY | 462 | Biochemistry Laboratory | 2 |
| Physic |  | Elements of Physics I or General Physics I | 4 |
| PHY | 114K | Introductory Physics Laboratory I | 1 |
| Core curriculum course |  |  |  |
| Core curriculum course |  |  | 3 |
|  |  |  | 16 |
| Spring semester |  |  |  |
| BIO | 409 | Cell and Molecular Biology | 3 |
| BIO | 410 | Cell and Molecular Biology Laboratory | 2 |
| BIO | 431 | Principles of Immunology | 3 |
| CHY | 463 | Biochemistry II | 3 |
| Physic |  | Elements of Physics II or General Physics II | 4 |
| PHY | 116 | Introductory Physics Laboratory II | 1 |
|  |  |  | 16 |
| Year 4 |  |  |  |
| Fall semester |  |  |  |
| AMS | 530 | Molecular Biology (if BIO 409 not taken) | 3 |
| AMS | 531 | Molecular Biology Laboratory (if BIO 410 not taken) | 3 |
| Core curriculum course |  |  | 3 |
| General elective(s) |  |  | variable |
|  |  |  | variable |
| Spring semester |  |  |  |
| AMS | 551 | Immunology Laboratory | 3 |
| Core curriculum course |  |  | 3 |
| Core curriculum course |  |  | 3 |
| General elective(s) |  |  | variable |
|  |  |  | variable |

Note: Total credits must add up to 120 . Suggested schedule is based on 8 semesters with approximately 15 credits per semester. Summer courses can reduce course load during the year.

| Human Biology Degree Plan |  |  |  |
| :---: | :---: | :---: | :---: |
| Year 1 |  |  |  |
| Fall semester |  |  |  |
| BIO | 105K | Biological Principles I: Cellular Biology | 3 |
| BIO | 106K | Laboratory Biology | 1.5 |
| CHY | 113K | Principles of Chemistry I | 3 |
| CHY | 114 K | Laboratory Techniques I | 1 |
| ENG | 100C | College Writing | 3 |
| Core curriculum course |  |  | 3 |


| Spring semester |  |  |  |
| :---: | :---: | :---: | :---: |
| BIO | 107 | Biological Principles II: Evolution, Biodiversity, | y, and |
|  |  | Ecology | 4.5 |
| CHY | 115 | Principles of Chemistry II | 3 |
| CHY | 116 | Laboratory Techniques II | 1 |
| MAT | 152D | Calculus A | 4 |
| Core curriculum course |  |  | 3 |
|  |  |  | 15.5 |
| Year 2 |  |  |  |
| Fall semester |  |  |  |
| BIO | 111 | Human Anatomy and Physiology I | 3 |
| BIO | 112 | Practical Human Anatomy and Physiology I | 1.5 |
| CHY | 251 | Organic Chemistry I | 3 |
| CHY | 252 | Organic Chemistry Laboratory I | 2 |
| MAT | 220 | Statistics for the Biological Sciences | 4 |
|  |  |  | 13.5 |
| Spring semester |  |  |  |
| BIO | 211 | Human Anatomy and Physiology II | 3 |
| BIO | 212 | Practical Human Anatomy and Physiology II | 1.5 |
| CHY | 253 | Organic Chemistry II | 3 |
| CHY | 254 | Organic Chemistry Laboratory II | 2 |
| Core curriculum course |  |  | 3 |
|  |  |  | 12.5 |
| Year 3 |  |  |  |
| Fall semester |  |  |  |
| BIO | 345 | Pathophysiology | 3 |
| CHY | 461 | Biochemistry I | 3 |
| CHY | 462 | Biochemistry Laboratory | 2 |
| PHY |  | Elements of Physics I or General Physics I | 4 |
|  | 114 K | Introductory Physics Laboratory I | 1 |
|  |  |  | 13 |
| Spring semester |  |  |  |
| BIO elective |  |  | 3-5 |
| CHY | 463 | Biochemistry II (if CHY 462 not taken in Fall) | 3 |
| Physics |  | Elements of Physics II or General Physics II | 4 |
| PHY | 116K | Introductory Physics Laboratory II | 1 |
| Core curriculum course |  |  | 3 |
| General elective(s) |  |  | variable |
|  |  |  | variable |
| Year 4 |  |  |  |
| Fall semester |  |  |  |
| BIO elective |  |  | 3-5 |
| BIO elective |  |  | 3-5 |
| Core curriculum course |  |  | 3 |
| Core curriculum course |  |  | 3 |
| Core curriculum course |  |  | 3 |
|  |  |  | 15-19 |
| Spring semester |  |  |  |
| BIO 401,402 General Physiology and Laboratory |  |  | 5 |
| BIO elective |  |  | 3-5 |
| Core curriculum course |  |  | 3 |
| General elective(s) |  |  | variable |

Note: Total credits must add up to 120 . Suggested schedule is based on 8 semesters with approximately 15 credits per semester. Summer courses can reduce course load during the year.

[^0]

Note: Total credits must add up to 120 . Suggested schedule is based on 8 semesters with approximately 15 credits per semester. Summer courses can reduce course load during the academic year.

| Pre-pharmacy Program Plan |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Year 1 |  |  |  |  |
| Fall semester |  |  |  |  |
| BIO |  | 105 K | Biological Principles I: Cellular Biology |  |
| BIO |  |  |  |  |
| BIO |  |  |  |  |$\quad$| 3 |
| ---: |


| CHY | 113K | Principles of Chemistry I | 3 |
| :---: | :---: | :---: | :---: |
| CHY | 114 K | Laboratory Techniques I | 1 |
| ENG | 100C | College Writing | 3 |
| EYE | 1XX | Entry Year Experience | 3 |
|  |  |  | 14.5 |
| Spring semester |  |  |  |
| BIO | 107 | Biological Principles II: Evolution, Biodiversity and |  |
|  |  | Ecology | 4.5 |
| CHY | 115 | Principles of Chemistry II | 3 |
| CHY | 116 | Laboratory Techniques II | 1 |
| ENG | 120 H | Introduction to Literature | 3 |
| THE | 170F | Public Speaking | 3 |
|  |  |  | 14.5 |
| Summer session |  |  |  |
| PHY | 111 K | Elements of Physics I | 4 |
| PHY | 114 K | Introductory Physics Laboratory I | 1 |
| PHY | 112 | Elements of Physics II | 4 |
| PHY | 116 | Introductory Physics Laboratory II | 1 |
|  |  |  | 10 |
| Year 2 |  |  |  |
| Fall semester |  |  |  |
| BIO | 111 | Human Anatomy and Physiology I | 3 |
| BIO | 112 | Practical Human Anatomy and Physiology I | 1.5 |
| CHY | 251 | Organic Chemistry I | 3 |
| CHY | 252 | Organic Chemistry Laboratory I | 2 |
| MAT | 152D | Calculus A | 4 |
| PSY | 101J | General Psychology I | 3 |
|  |  |  | 16.5 |
| Spring semester |  |  |  |
| BIO | 211 | Human Anatomy and Physiology II | 3 |
| BIO | 212 | Practical Human Anatomy and Physiology II | 1.5 |
| CHY | 253 | Organic Chemistry II | 3 |
| CHY | 254 | Organic Chemistry Laboratory II | 2 |
| MAT | 220 | Statistics for Biological Sciences | 4 |
| SOC | 100J | Introduction to Sociology | 3 |
|  |  |  | 16.5 |

Summer Session (general education requirements vary by program so check individual program requirements)

| Economics | Introduction to Macroeconomics or Introduction to |  |
| :--- | ---: | ---: |
|  | Microeconomics | 3 |
| General education electives (ex: ART, PHI, HTY) | $\frac{3-6}{6-9}$ |  |

## Minor in Biology

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 18. A grade of C - or higher is required for all courses in the minor.

The minor consists of 18 credit hours of biology coursework. Students can begin with the general biology sequence of BIO 105K, BIO 106K, BIO 107, and BIO 109, or the human biology sequence of BIO 111, BIO 112, BIO 211, and BIO 212. Students must then take additional upper-level electives (200 or above) to equal a total of 18 credit hours. At least 6 credit hours of these upper-level courses must be taken within the Department of Biological Sciences.

A laboratory fee is assessed in biology laboratory courses.

## BIO 101K Biological Foundations

An introduction to the areas of current biological interest: molecular and cellular biology, genetics and development, and evolution and population biology. Intended primarily for students selecting a laboratory science to satisfy the Core curriculum or for those students not intending to take other courses in the biological sciences. This course cannot be used as a prerequisite for other biology courses.

## BIO 102K Biological Experiences

Laboratory studies to complement and illustrate the concepts presented in BIO 101K. Prerequisite: Prior or concurrent registration in BIO 101 K . Cr 1.

## BIO 103K Introduction to Marine Biology

A course intended for the non-science major. Selected groups of marine plants and animals are used to develop an understanding of biological processes and principles that are basic to all forms of life in the sea. Integrated in the course are aspects of taxonomy, evolution, ecology, behavior, and physiology.

Cr 3.

## BIO 104K Marine Biology Laboratory

An examination of prototype organisms will be used to illustrate their varied roles in the ocean. Prior or concurrent registration in BIO 103 K . Cr 1.

## BIO 105K Biological Principles I: Cellular Biology

This is an introduction to the scientific principles of molecular biology, cell biology, and genetics. Prerequisite: students must have fulfilled the University minimum proficiency requirements in writing and mathematics.

Cr 3.

## BIO 106K Laboratory Biology

Laboratory experiences illustrating concepts and principles introduced in BIO 105 K . Concurrent enrollment in BIO 105 K is highly recommended. Prerequisite: grade of C - or higher or concurrent enrollment in BIO 105K. Students must have fulfilled the University minimum proficiency requirements in writing and mathematics.

Cr 1.5.

## BIO 107 Biological Principles II: Evolution, Biodiversity, and Ecology

This is an integrated lecture-laboratory course introducing students to the scientific principles of evolution, biodiversity, and ecology. The lecture and laboratory each meet three hours weekly. Prerequisites: grades of C- or higher in BIO 105 K and BIO 106K.

Cr 4.5.

## BIO 109 Biological Principles III: Functional Biology

This is an introduction to the scientific principles of structure and function in plants and animals. Prerequisite: grade of C- or higher in BIO 107. Cr 3.

## BIO 111 Human Anatomy and Physiology I

The course is the first semester of a two-semester
sequence concerning the structure and function of the human body. The course focuses on the study of cell chemistry, cell physiology, tissues, integumentary system, skeletal system, muscle system, and nervous system. Prerequisite: satisfactory completion of minimum proficiency requirements. Cr 3.

## BIO 112 Practical Human Anatomy and <br> Physiology I

Laboratory experiences illustrating concepts and principles introduced in BIO 111. The course will cover the following topics: metrics, language of anatomy, cell physiology, tissues, integumentary system, skeletal system, muscular system, and nervous system. Prerequisite: BIO 111 or concurrent. Cr 1.5.

## BIO 201 Genetics

This is a study of the molecular basis of heredity and methods of genetic analysis. Prerequisites: grade of C- or higher in BIO 107 or BIO 211 and 212, and CHY 115; or permission of instructor. Cr 3.

## BIO 205 Comparative Vertebrate Anatomy

The comparative study of vertebrate organ systems from an adaptational and evolutionary point of view. Lecture three hours/week; one four-hour laboratory/week. Prerequisites: grade of C - or higher in BIO 109.

Cr 5.

## BIO 211 Human Anatomy and Physiology II

This course is a continuation of BIO 111. The structure and function of the endocrine, cardiovascular, respiratory, digestive, and urinary systems will be discussed. Prerequisite: grade of C - or higher in BIO 111.

Cr 3.

## BIO 212 Practical Human Anatomy and Physiology II

Laboratory studies of the structure and function of the endocrine, cardiovascular, respiratory, reproductive, digestive, and urinary systems. Prerequisite: grade of C- or higher in BIO 112; BIO 211 or concurrently.

Cr 1.5.

## BIO 217 Evolution

This course teaches the geological and fossil records; the mechanism of selection as a creative principle; the genetic basis of natural selection; the pervasive imprint of evolution in living and fossil species; the evolution of complex molecules and organ systems; and the geological and ecological processes that have influenced diversification. Prerequisite: grade of C- or higher in BIO 107, or permission of instructor.

Cr 3.

## BIO 231 Botany

A study of structure, function, development, reproduction, and environmental adaptations of representative non-vascular and vascular plants. Lecture three hours/week; one three-hour laboratory/week. Prerequisite: grade of C - or higher in BIO 107 or permission of instructor.

Cr 4.5.

## BIO 251 History of Biology

A chronological survey of developments in biological investigations from earliest records to the present day. Prerequisite: grade of C - or higher in BIO 105 K or 111 , or permission of instructor. Cr 3.

## BIO 281 Microbiology and Human Disease

Fundamentals of microbiology with emphasis on infectious diseases of people, including bacteria, rickettsia, fungi, viruses, protozoa and helminths. Prerequisites: grade of C- or higher in BIO 105 K or BIO 111, and CHY 107.

Cr 3.

## BIO 282 Microbiology and Human Disease Laboratory

Laboratory techniques in the cultivation, identification, and control of microorganisms. Prerequisite: BIO 281 or concurrently. This course does not fulfill the Area 4 requirement.

Cr 2.

## BIO 291 Ornithology

This course studies the basic biology of birds: their life histories, migration, ecology, and economic importance, with emphasis on species found in Eastern North America. Numerous field trips to a variety of habitats will be taken for purposes of field identification. Students are responsible for their own appropriate outdoor clothing and footwear and for binoculars. Prerequisite: a grade of C - or higher in BIO 107, or permission of instructor. Cr 4.5 .

## BIO 305 Developmental Biology

An analysis of the cellular and molecular interactions leading to normal development. Prerequisite: grade of C- or higher in BIO 107.

Cr 3.

## BIO 306W Developmental Biology Laboratory

This laboratory course is designed to illustrate principles of animal development introduced in BIO 305 using genetic, histochemical, and molecular analyses. Prerequisite: prior or concurrent registration in BIO 305.

Cr 2.

## BIO 311 Microbiology

This course is a comprehensive introduction to cellular, biochemical, and genetic aspects of prokaryotes. Viruses and some eukaryotic micro-organisms are also considered. Prerequisites: CHY 115 and grade of C- or higher in BIO 107; or permission of instructor.

Cr 3 .
BIO 312W Microbiological Laboratory
The laboratory explores basic techniques of isolation and cultivation of microorganisms, primarily bacteria and fungi. In addition, biochemical, molecular, and genetic analyses of microorganisms are introduced. To fulfill the W requirement, students must be enrolled in BIO 311 and 312 concurrently. Prerequisite: grade of C- or higher or concurrent enrollment in BIO 311 ; or permission of instructor.

Cr 2.

## BIO 321 Neurobiology

This course presents an overview of nervous system function, structure, and development. Content
focuses on the cellular and molecular properties that underlie normal function. Prerequisite: grade of Cor higher in BIO 109 or BIO 111, or permission of instructor.

Cr 3.

## BIO 322 Neurobiology Laboratory

This laboratory course is designed to enable students to gain experience with a range of experimental techniques used in neurobiology research. These include cell culture, electrophysiology, histochemistry, microscopy, and behavioral analyses. Prerequisite: prior or concurrent registration in BIO 321. Cr 2.

## BIO 331 Ecological Principles

A scientific study of interactions determining the distribution and abundance of organisms. Prerequisite: grade of C- or higher in BIO 107.

Cr 3.

## BIO 332 Field Ecology

Field studies demonstrating basic concepts of ecology. Prerequisite: BIO 331 or concurrently. Cr 2.

## BIO 335 Entomology

Integrated lecture-laboratory course on the biology of insects and their impact on humanity. Prerequisite: grade of C- or higher in BIO 107.

Cr 3 .

## BIO 337 Marine Ecology

A comparative ecological study of coastal and oceanic environments. Lecture, three hours/week; weekly four-hour field trip. Prerequisite: Grade of C- or higher in BIO 107.

Cr 5.

## BIO 345 Pathophysiology

A study of the physiological, genetic, biochemical and environmental basis of noninfectious diseases. Prerequisite: grade of C- or higher in BIO 109 or BIO 211, or permission of instructor. Cr 3.

## BIO 351 Invertebrate Zoology

The morphology, physiology and evolution of invertebrate animals. Three hours of lecture and two, two-hour laboratories per week. Prerequisite: a grade of C- or higher in BIO 107.

Cr 5.

## BIO 353W Vertebrate Zoology

This course is a survey of the vertebrate animals, focusing on classification, morphology, physiology, ecology, behavior, and evolutionary history of each group. Lecture three hours a week; one four-hour laboratory a week. Prerequisites: grade of C - or higher in BIO 109.

Cr 5.

## BIO 361 Parasitology

The life histories and host-parasite relationships of animal parasites, with emphasis on those of humans. Prerequisite: grade of C - or higher in BIO 105 K .

Cr 2.

## BIO 362 Parasitological Laboratory

The morphology and life cycles of parasitic protozoa, helminths, and arthropods. Prerequisite: BIO 361 or concurrently. Cr 2.

## BIO 381 Plant Physiology

This course is a study of the physiological activities of plants, and their growth and development as influenced by internal and external factors. Lecture three hours/week; one three-hour laboratory/week. Prerequisites: CHY 115 and grade of C- or higher in either BIO 109 or BIO 231; or permission of instructor.

Cr 4.5.

## BIO 383 Plant Ecology

This course examines plant ecology at the population, community, and ecosystem levels. Plant adaptations to the environment are also discussed, with emphasis on how these traits influence community and ecosystem processes. Weekly field trips are required. Prerequisite: grade of C - or higher in BIO 107.

Cr 5.

## BIO 401 General Physiology

A study of physiological processes and their regulation in animals. Prerequisites: CHY 115, either PHY 111 K or PHY 121 K , and grade of C- or higher in either BIO 107 or BIO 211 ; or permission of instructor.

Cr 3.

## BIO 402 General Physiology Laboratory

Laboratory examination of physiological mechanisms in animals. Prerequisite: BIO 401 or concurrently; MAT 220.

Cr 2.

## BIO 403 Comparative Physiology

Physiological and biochemical basis of environmental adaptation. Prerequisites: CHY 115, junior standing, and grade of C - or higher in BIO 107. Cr 3.

## BIO 404 Comparative Physiology Laboratory

Laboratory experiments on the physiological basis of environmental adaptation. Emphasis is on marine organisms. Prerequisite: BIO 403 or concurrently; MAT 220.

Cr 2.

## BIO 405W Animal Behavior

This course is a study of the principles of behavioral organization in vertebrate and invertebrate animals, with emphasis on behavior under natural conditions. Prerequisite: grade of C- or higher in BIO 107 or BIO 211, or permission of instructor.

Cr 3.

## BIO 406 Animal Behavior Laboratory

This course is a laboratory and field examination of behavioral principles in animals. Prerequisite: BIO 405 or concurrently.

Cr 2.

## BIO 407 Molecular Mechanisms in Development

This is a molecular genetic analysis of animal development focusing on an integrative approach toward understanding the evolution of developmental mechanisms. Prerequisite: grades of C - or higher in BIO 201 and BIO 305, or permission of instructor. Cr 3.

## BIO 408 Experimental Genetics

This course includes lectures and laboratory exercis-
es in human and fruit fly genetics. This is not a companion course to BIO 201. Prerequisite: BIO 201 or concurrently, or permission of instructor. Cr 2.

## BIO 409 Cell and Molecular Biology

A study of the eukaryotic cell at the level of organelles and molecules. The biochemical aspects of cell growth and reproduction are emphasized. Prerequisites: CHY 115 and either grade of C- or higher in BIO 201 or concurrent enrollment in BIO 201.

Cr 3.

## BIO 410 Cell and Molecular Biology <br> Laboratory

A course in which the techniques of cell fractionation and biochemical analyses are applied to the eukaryotic cell. Prerequisite: BIO 409 or concurrently. Cr 2.

## BIO 415 Microbial Ecology

This course is a continuation of BIO 311. The course begins with an examination of microbial evolution and biodiversity. It then explores the interactions of microorganisms in populations and within communities, and their interactions with other organisms and the environment, including an examination of physiological adaptations and biogeochemical cycles. Prerequisite: grade of C - or higher in BIO 281 or BIO 311 or equivalent, or permission of instructor.

Cr 3.

## BIO 416 Microbial Ecology Lab

This is the companion lab course to BIO 415, designed as a hands-on project lab to introduce students to a variety of methods used in microbial ecology. There will be a field component, lab component, and written component to the projects that will be completed during the semester. Microscopic, cell culture, and molecular methods will be employed. Prerequisites: grade of C- or higher in BIO 415 (or equivalent) or concurrent enrollment, or permission of instructor.

Cr 2.

## BIO 417 Issues in Evolution

This course surveys major issues that motivate current research in evolutionary biology, providing an historical analysis of areas of controversy and alternative points of view within the field. The course is based on selected readings in the theoretical and experimental literature of the field, from primary and classical sources. Prerequisites: grades of C - or higher in BIO 201 and BIO 217; or permission of instructor.

Cr 3 .

## BIO 421 Biology Seminar

Weekly oral reports and discussions by students and staff on biological topics of current interest. Prerequisite: 16 hours of biology or permission of instructor. May be repeated.

Cr 1 or 2.

## BIO 431 Principles of Immunology

An introduction to the fundamentals of immunology, especially as they relate to human diseases. Topics include history of immunology, basic ele-
ments of immune systems, principles of natural and acquired immunity, cellular and molecular basis of $B$ cell and $T$ cell development and diversity, and clinical aspects of immunology. Prerequisites: CHY 105 or CHY 115, junior standing, and grade of C- or higher in either BIO 109 or BIO 211; or permission of instructor.

Cr 3 .

## BIO 441 Problems in Biology

Independent library or laboratory studies on a special topic as mutually arranged by instructor and student. Prerequisite: by arrangement. Credit arranged.

## Chemistry

Chair of the Department: Henry Tracy, 352 Science Building, Portland Professors: Tracy; Associate Professors: Prudenté; Assistant Professors: Benedict, Ford; Professors Emeriti: Gordon, Newton, Rhodes, Ricci, Sottery, Stebbins, Whitten

The field of chemistry is concerned with the structure of matter, its transformations, and the energy changes related to these transformations. Departmental aims are to contribute to the student's understanding of chemistry's place within the sciences and in today's industrial and business world, and to provide students concentrating in this field with a thorough and practical education that will be useful in teaching or in industrial, technical, or graduate work.

To achieve these aims the Department of Chemistry offers a four-year program with three tracks leading to baccalaureate degrees (B.A. in chemistry, B.S. in chemistry, and B.S. in biochemistry). Because the chemistry courses in each track are the same for the first two years, it is possible to switch tracks through the junior year. Students considering a chemistry major are strongly urged to consult with a member of the Department of Chemistry faculty to discuss the total program. They should pay particular attention to the pre- and co-requisites necessary for different courses.

To graduate as a chemistry major in any of the three programs, a student must earn a grade of C or better in all chemistry courses and a minimum grade point average of 2.0 in all other courses required for the major.

## Bachelor of Science: Chemistry

The minimum number of credits in chemistry and related areas (exclusive of the University's Core curriculum) required for the major in this track: 66.

The courses include: CHY 113K \& $114 \mathrm{~K} ; 115$ \& 116; 231 \& 232; 251 \& 252; $253 \& 254 ; 371 \& 372,373 \& 374 ; 377 \& 378 ; 401 ; 421$; one of the following three offerings: $345,351,461$ (a minimum of 44 hours within the Department). In addition PHY 121K \& 114K; 123 \& 116; MAT 152D, 153; COS 160/170 (Java) or a math/computer science course approved by the Chemistry Department are required (a total of 22 more hours). At least 12 credit hours beyond the 100 -level must be taken within the Chemistry Department at USM.

## Bachelor of Science: Biochemistry

The minimum number of credits in chemistry and related areas (exclusive of the University's Core curriculum) required for the major in this track: 75-79.

The courses include: CHY 113 K \& $114 \mathrm{~K} ; 115$ \& $116 ; 231 \& 232 ; 251 \& 252$; $253 \& 254 ; 373 \& 374 ; 461 \& 462 ; 463$; either CHY 421 or $377 \& 378$ (a minimum of 40-42 hours within the Department). In addition, either AIM $670 \& 671$ or BIO 409 \& 410, and either AIM $620 \& 621$ or BIO $201 \& 408$ or BIO $305 \& 306 \mathrm{~W}$ or BIO 311 \& 312 W or BIO $401 \& 402$ (a total of 10-12 hours). Also, BIO 105K; PHY 121 K \& 114 K ; 123 \& 116; MAT 152D, 153; COS 160/170 (Java) or a math/computer science course approved by the Department of Chemistry are required (a total of 22 more hours). At least 12 credit hours beyond the 100 -level must be taken within the Chemistry Department at USM.

## Bachelor of Arts: Chemistry

The minimum number of credits in chemistry and related areas (exclusive of the University's Core curriculum) required for the major in this track: 61-62.

The courses include: CHY 113K \& 114K; 115 \& 116; 231 \& 232; 251 \& 252; $253 \& 254 ; 371 \& 372 ; 373 \& 374 ; 401$; two of the following five offerings; 345 ; $351 ; 377 \& 378 ; 421 ; 461$ (a minimum of $39-40$ hours within the Department). In addition PHY 121K \& 114K; PHY 123 \& 116; MAT 152D, 153; COS 160/170 (Java) or a math/computer science course approved by the Chemistry Department are required (a total of 22 more hours). At least 12 credit hours beyond the 100-level must be taken within the Chemistry Department at USM.

Admission Requirements

## Minor in Chemistry

The minimum number of credits (exclusive of the Core curriculum) required for the minor: 17 . At least 6 credit hours beyond the 100 -level must be taken within the Chemistry Department at USM.

The minor consists of CHY 113 K \& $114 \mathrm{~K}, 115$ \& 116 and either of the following two groups of courses: $231 \& 232,251 \& 252$, or $371 \& 372 ; 373 ; 421$.

| CHY | $113 \mathrm{~K} / 114 \mathrm{~K}$ | General Chemistry I with Laboratory | ( 4 credits) |
| :--- | :--- | :--- | ---: |
| CHY | $115 / 116$ | General Chemistry II with Laboratory | ( 4 credits) |
| CHY | $231 / 232$ | Analytical Chemistry with Laboratory | ( 4 credits) |
| CHY | $251 / 252$ | Organic Chemistry I with Laboratory | ( 5 credits) |
| Total hours |  | $(17$ credits) |  |

CHY 113K/114K General Chemistry I with Laboratory (4 credits)
CHY 115/116 General Chemistry II with Laboratory (4 credits)
CHY 371/372 Physical Chemistry I (5 credits)
CHY $373 \quad$ Physical Chemistry II with Laboratory $\quad$ (3 credits)
CHY 421 Inorganic Chemistry (3 credits)
Total hours (19 credits)

## Minor in Biochemistry

The minimum number of credits required (exclusive of Core courses) for the minor: 23 . The minor consists of CHY $113 \mathrm{~K}, 114 \mathrm{~K}, 115,116,251,252,253,254$, 461 , and either 462 or 463 . The biochemistry minor is not open to chemistry majors. At least 6 credit hours beyond the 100 -level must be taken within the Chemistry Department at USM.

Students who apply for admission to the chemistry program should have completed college preparatory courses in chemistry, physics, and mathematics. At least two years of algebra and a semester each of geometry and trigonometry are recommended as part of the student's high school program. (Freshmen in the chemistry program who lack this preparation in mathematics are required to take MAT 140D, Precalculus Mathematics.)

A laboratory fee is assessed in chemistry laboratory courses.

## CHY 100 Foundations for College Chemistry

The course will review basic chemical principles commonly presented in high school chemistry and emphasize solving mathematical problems usually done in freshman college-level chemistry. Prerequisite: satisfaction of math proficiency requirements. Ahigh school chemistry course is recommended. Not open to students who have already passed a chemistry course numbered 101 or higher.

Cr 2.

## CHY 101K Introduction to Chemistry

General topics in chemistry including introductory units on matter and its properties; measurement; elements and compounds; atomic structure; solutions, dispersions, and water; osmotic pressure; chemical bonds; chemical nomenclature; stoichiometry; radio-chemistry; gases; acids, bases and buffers; and energy relationships in chemical processes. Three hours lecture per week (usually concurrent with CHY 102K). Prerequisite: high school algebra. Not appropriate for science majors, pre-med, pre-vet or pre-dentistry students.

Cr 3.

## CHY 102K Introduction to Laboratory

## Measurement

Experiments will be designed to teach students how to perform accurate and reliable measurements using the major parameters of mass and volume. Topics to be covered include: physical and chemical changes; separation of a mixture; analysis of an ionic solution; properties of water; gases; acids, bases and buffers; titration. One recitation and two laboratory hours per week. Corequisite: CHY 101K. Not appropriate for chemistry or biology majors.

Cr 1.

## CHY 103 Introduction to Organic and Biochemistry

Stress will be placed upon topics of special importance for students of the health sciences: nomenclature of organic compounds; electron distribution in organic molecules; structural features of organic molecules; substitution, elimination, and addition reactions; oxidation reduction reactions; carbohydrates; lipids; proteins and amino acids; enzymes; nucleic acids; metabolism; summary of some aspects of nutrition; pharmaceuticals; medical applications of radiochemistry. Three lecture hours per week (usually concurrent with CHY 104). Prerequisite: a grade of C or better in CHY 101K. Not appropriate for science majors, pre-med, pre-vet or pre-dentistry students.

Cr 3.

## CHY 104 Introductory Organic and Biochemistry Laboratory

Students will perform experiments to illustrate aspects of organic chemistry of importance to living systems, as well as elementary principles of biochemistry. Topics include separation and identification of organic compounds; qualitative reactions of lipids, proteins, and nucleic acids; introduction to enzyme chemistry. One recitation and two laboratory hours per week. Offered spring semester. Corequisite: CHY 103. Not appropriate for chemistry or biology majors.

Cr 1.

## CHY 107 Chemistry for Health Sciences

A one-semester introduction to general, organic, and biological chemistry for the health sciences. Topics include acids and bases, pH , chemical kinetics and equilibria, the chemistry of organic compounds; carbohydrates, proteins, lipids, nucleic acids. This course is not suitable for chemistry majors, biology majors, or pre-professionals (pre-dental, pre-medical, pre-veterinary).

Cr 3.

## CHY 108 Chemistry Laboratory for Health

 SciencesExperiments in this laboratory are designed to illustrate principles from CHY 107. Aims of the course are to develop skill in using common laboratory equipment, measuring and analyzing data, and in reporting results of lab work. One three-hour meeting per week. Corequisite or prerequisite: CHY 107.

Cr 1.

## CHY 110K Chemistry, Life, and the Environment

An introduction to chemistry and its importance to society. This course is centered on the nature of atoms and molecules, and how the structures of molecules give rise to the beneficial and harmful effects of chemicals. Classroom examples include medicines, consumer products, pollutants, and the molecules of life. Laboratory and home experiments include examining the chemical content of foods. This course is designed to satisfy the natural Sciences (Area K) requirement of the Core curriculum. Prerequisite: completion of all Core Basic Competence requirements.

Cr 4.

## CHY 113K Principles of Chemistry I

A presentation of fundamental principles of chemical science. These principles will be presented in quantitative terms and illustrated by examples of their applications in laboratories and in ordinary non-laboratory experience. This course and CHY 114 (normally taken concurrently) provide the basis for further study of chemistry. Prerequisite: satisfaction of USM math minimum proficiency requirements. Cr 3.

## CHY 114K Laboratory Techniques I

Laboratory experiments to illustrate the principles that are presented in CHY 113 lectures. One recitation and two laboratory hours per week. Corequisite: CHY 113K.

Cr 1.

## CHY 115 Principles of Chemistry II

A continuation of CHY 113 K . This course is designed to provide the foundation for all further studies in chemistry and is a prerequisite for all upper-level chemistry courses. Prerequisite: a grade of C or better in CHY 113K. Cr 3.

## CHY 116 Laboratory Techniques II

Laboratory experiments to illustrate the principles presented in CHY 115 lectures. One recitation and two laboratory hours per week. Prerequisite: a grade of C- or better in CHY 114 K . Corequisite: CHY 115.

Cr 1.

## CHY 231 Analytical Chemistry

A survey of principles and applications of modern analytical chemistry and related calculations. Topics include volumetric and gravimetric analysis, electroanalysis, spectrophotometry, separations, statistics, and error analysis. Prerequisite: a grade of C or better in CHY 115.

Cr 2.

## CHY 232 Analytical Chemistry Laboratory

Quantitative experimental determination by means of classical and instrumental methods. Techniques used include titration, gravimetric analysis, spectrophotometry, electroanalysis, and chromatography. Precision, accuracy, and statistical error analysis of results are emphasized. Four lab hours per week. Prerequisite: a grade of C or better in CHY 116. Corequisite: CHY 231.

Cr 2.

## CHY 251 Organic Chemistry I

An intensive treatment of organic chemistry. Topics include: nomenclature; structure and stereochemistry; reaction types: substitution, addition, elimination and oxidation-reduction; reaction mechanisms and factors influencing them; spectroscopic techniques of structure determination (mass, nuclear magnetic resonance, ultraviolet-visible and infrared). Prerequisite: a grade of C or better in CHY 115.

Cr 3.

## CHY 252 Organic Chemistry Laboratory I

Students conduct independent research by executing a multi-step synthesis of a series of compounds. An additional goal is the characterization of the physical and chemical properties of the target molecules as well as the intermediates. Students will develop proficiency in synthetic methods, chromatography, and spectroscopy by working with model compounds. Prerequisite: a grade of C or better in CHY 116. Prerequisite or corequisite: CHY 251.

Cr 2.

## CHY 253 Organic Chemistry II

A continuation of CHY 251, but with a more extensive (and intensive) investigation of the principal categories of organic reactions. Extensive problem solving in such areas as structure determination, spectroscopy, and stereochemistry. The structures and fundamental chemical reactions of lipids, carbohydrates, proteins and nucleic acids will be presented. Prerequisite: a grade of C or better in CHY 251.

Cr 3.

## CHY 254 Organic Chemistry Laboratory II

Students will apply the skills they developed by working with model compounds in CHY 252 to the synthesis of the desired target molecules. Prerequisite: A grade of C or better in CHY 252. Prerequisite or corequisite: CHY 253.

Cr 2.

## CHY 345 Polymer Chemistry

We live in a plastic society. During the past 90 years plastics (synthetic polymers) have become an integral part of our daily lives. This course will survey
the past, present, and future of the chemistry of these essential materials. We will discuss the preparation of polymers under radical chain, step-reaction, ionic, and coordination conditions. Then we will consider methods of characterization of polymers, both experimental and theoretical. Finally we will examine commercial polymers and polymer technology. Prerequisites: CHY 253 and 373. Cr 3.

## CHY 351 Advanced Organic Chemistry

This course will explore fundamentals of organic reaction mechanisms. A partial list of the topics to be covered includes steric, electronic, and stereo electronic effects; conformational analysis; thermodynamic and kinetic principles; applications of molecular orbital theory; reactive intermediates; and modern techniques used to study reaction mechanisms. Course content may vary from year to year, depending on student interests. Prerequisite: a grade of C or better in CHY 253.

Cr 3.

## CHY 371 Physical Chemistry I

Principles of theoretical chemistry: quantum mechanics and spectroscopy. Candidates for the B.S. degree elect this course in the fall semester of the junior year. Prerequisites: a grade of C or better in CHY 115, MAT 152D, and PHY 123. Cr 3.

## CHY 372 Physical Chemistry Laboratory I

Experiments illustrating material presented in CHY 371. One recitation and three laboratory hours per week. Prerequisite: a grade of C or better in CHY 116. Prerequisite or corequisite: CHY 371. Cr 2.

## CHY 373 Physical Chemistry II

Principles of theoretical chemistry: classical thermodynamics, molecular energetics, equilibrium, reaction kinetics, statistical thermodynamics, and electrochemistry. Prerequisites: a grade of C or better in CHY 115, MAT 152D, and PHY 123. Cr 3.

## CHY 374 Physical Chemistry Laboratory II

Experiments illustrating material presented in CHY 373. One recitation and three laboratory hours per week. Prerequisite or corequisite: CHY 373. Cr 2.

## CHY 377 Instrumental Analysis

A consideration of the applicability of current laboratory instrumentation both to the elucidation of fundamental chemical phenomena and to the measurement of certain atomic and molecular parameters. Topics include absorption and emission spectroscopy in the ultraviolet, visible and infrared regions; chromatography; electrochemistry; mass spectrometry; and magnetic resonance. Prerequisite or corequisite: CHY 231 and CHY 371 or permission.

Cr 3.

## CHY 378 Instrumental Analysis Laboratory

Experiments will be performed in electrochemistry, mass spectrometry, gas and liquid chromatography, and UV-Vis, NMR, AA, and fluorescence spectroscopy. Prerequisites: grades of C or better in CHY 232 and CHY 371. One hour of pre-lab recitation and three laboratory hours per week. Cr 2.

## CHY 401 Seminar

Oral and written presentation of a current topic in chemistry or of research results. Required of all senior majors. Satisfactory completion of written paper fulfills technical writing requirement. Cr 1.

## CHY 410-419 Special Topics

Reading and discussion of advanced subjects or instruction in special topics/research. Permission of instructor required. 6 credits maximum. Cr 1-3.

## CHY 421 Inorganic Chemistry

Descriptive chemistry of the inorganic compounds, structure, bonding and ligand field theory. Prerequisite or corequisite: CHY 371 . Cr 3.

## CHY 422 Advanced Chemistry Laboratory

Preparation and characterization of compounds utilizing advanced modern techniques and instrumentation. One recitation and three laboratory hours per week. Prerequisite or corequisite: CHY 421. Not offered every year.

Cr 2.

## CHY 461 Biochemistry

Application of chemical methods and principles to understanding biological processes. Topics include structure and action of nucleotides, proteins, lipids, and carbohydrates; enzyme kinetics and mechanisms; membranes and transport; and metabolism and energy conversion. This one-semester course provides a survey of the major areas of biochemistry, except for nucleic acids. Prerequisite: a grade of C or better in CHY 253 or by instructor premission.

Cr 3.

## CHY 462 Biochemistry Laboratory

Basic experimental methods in modern biochemistry. Experiments include detecting, purifying,
crystallizing, and characterizing proteins; analyzing protein structure, and measuring enzyme kinetics. Techniques include ultraviolet and visible spectrophotometry; ion-exchange, gel, and high-pressure liquid chromatography; electrophoresis, and analysis of protein structure by computer graphics. One hour lecture and three hours laboratory per week. Prerequisite: a grade of C or better in CHY 254. Prerequisite or corequisite: CHY 461. Cr 2.

## CHY 463 Biochemistry II

Continuation of CHY 461. Topics include selected biosynthetic pathways, including photosynthesis; signal transduction applied to hormones, nerve transmission, and the five senses; and methods for structural analysis of macromolecules, including X-ray diffraction, nuclear magnetic resonance, and homology modeling. Participants present a seminar on a topic of current biochemical research. Prerequisite: a grade of C or better in CHY 461.

Cr 3 .

## CHY 464 Biochemistry Laboratory II

Continuation of CHY 462. Experiments include detecting and characterizing lipids, sequencing proteins and nucleic acids, analyzing protein conformation, measuring protein synthesis, and characterizing antigen-antibody interactions. Techniques include paper and thin-layer chromatography, gel electrophoresis, and computer graphics. One hour lecture and three hours laboratory per week. Prerequisite: a grade of C or better in CHY 462. Prerequisite or corequisite: CHY 463 . Cr 2.

## CHY 490 Senior Research Project

Open to senior majors. Prerequisites include a 2.0 GPA in chemistry, completion of the Analytical and Organic Chemistry series, and permission of the department. 15 credits maximum. Cr 3-15.

# Communication and Media Studies 

Chair of the Department: David Pierson, 19 Chamberlain Avenue, Portland Professors: Shedletsky, West; Associate Professors: Lockridge, Panici, Pierson; Assistant Professors: Anderson, Killmeier, Kivatisky; Lecturers: Gilbert, Slack; Media Lab Manager: Ives

The Department of Communication and Media Studies offers two bachelor of arts degrees, one in communication and the other in media studies. These two degree programs are distinct in several ways. In terms of focus, the communication degree program takes a broad view of communication including the examination of face-to-face contexts and mediated ones. The media studies degree program more specifically focuses on media writing, criticism, and production. Another difference in these degree programs occurs at the senior level. Media studies majors prepare a senior project (intended to serve as a portfolio of their writing and/or production work) and participate in a service learning practicum (working for a community organization in a media capacity). Communication majors take two senior seminars. One seminar is chosen from a list of topics and the other is a capstone seminar designed to be a culmination of their undergraduate work and as a transition to graduate studies. Aside from the differences that make each program unique, the programs share a common core of courses that serve as a foundation for both. The two programs also embrace a liberal arts philosophy. This means that the emphasis is on critical thinking rather than vocational training.

The Department of Communication and Media Studies offers courses in a variety of settings. We maintain a presence in Portland and Gorham, and teach classes in several off-site locations including the Saco Center and the Bath/Brunswick Center. Additionally, several CMS courses are available through ITV and many courses are now being offered online.

All students must complete CMS 102J: Introduction to Communication, CMS 103: Introduction to Media Studies, and CMS 200: Research Methods in Communication. These are the core courses that serve as the foundation for both degree programs. Introduction to Communication and Introduction to Media Studies provide students with an overview of the field. Research Methods in Communication prepares students to decipher and critically analyze various types of research. Students must receive a grade of C or higher in all required courses in their respective degree programs in order to graduate. The Department of Communication and Media Studies is pleased to accept transfer credit from other accredited institutions of higher learning. Students wishing to receive credit for courses taken outside of USM will need to meet with the chair of the Department in order to discuss specific courses. Students may transfer a maximum of 12 credits in the major. The transfer of credits is at the discretion of the Department. Students are encouraged to contact us with any questions about the Department or our programs.

## Programs and Requirements



| III. Media Theory | ( 6 credit hours - select two) |  |
| :--- | :--- | :--- |
| CMS | 284 | Film Appreciation |
| CMS | 294 | Visual Communication |
| CMS | 303 | Media Effects |
| CMS | 310 | Topics in Media Criticism II |
| CMS | 350 | The Internet in Society |
| CMS | 355 | Consumer Culture |
| CMS | 370 | Media and Social Change |
| CMS | 374 | Media Criticism and Aesthetics |
| CMS | 380 | Film Genres |
| CMS | 384 | Film and Cultural Studies |
| CMS | 394 | Theories of Film |
|  |  |  |
| IV. Senior Experience (6 credit hours) |  |  |
| Senior | Seminar ( 3 Credit hours - select one) |  |
| CMS | 420 | Communication and Cognition |
| CMS | 432 | Topics in Interpersonal Communication |
| CMS | 450 | Computer-Mediated Communication |
| CMS | 475 | Discursive Practices |
| CMS | 484 | Topics in Film |
| CMS | 485 | Sex-Related Differences in Communication |
| CMS | 486 | Women in Film |
| CMS | 490 | Theories of Mass Communication |
|  |  |  |
| Capstone Senior Seminar (3 credits) |  |  |
| CMS | 495 | Theories of Communication |

V. Electives (6 credit hours)

Communication majors may select any two courses offered by the Department as electives as long as they have met the prerequisites. The exceptions are internships and independent studies. These count toward the total number of credits needed for a bachelor of arts degree, but not as electives in the major.

## Minor in Communication

Students seeking the minor in communication must meet with the Department chair to learn more about completing this minor.

## Bachelor of Arts in Media Studies

Major Requirements (45 credit hours)
I. Common Core (9 credit hours)

CMS 102J Introduction to Communication
CMS 103 Introduction to Media Studies
CMS 200 Research Methods in Communication
II. Media Writing (9 credit hours)

Select One:
CMS 150W The Writing Process
CMS 274W Writing for the Media
Select Two:
CMS 200 Topics in Media Writing I
CMS 225 Screenwriting I
CMS 250W Critical Thinking and Writing
CMS 300 Topics in Media Writing II
CMS 305 Writing Opinion: Editorials and Columns
CMS 315 Broadcast Newswriting
CMS 325 Screenwriting II
III. Media Theory (9 credit hours)

Select One:

| CMS | 284 | Film Appreciation |
| :--- | :--- | :--- |
| CMS | 294 | Visual Communication |
| CMS | 374 | Media Criticism and Aesthetics |
| Select Two: |  |  |
| CMS | 210 E |  |
| CMS Topics in Media Criticism I |  |  |
| CM03 | Media Effects |  |


| CMS | 310 | Topics in Media Criticism II |
| :--- | :--- | :--- |
| CMS | 350 | The Internet and Society |
| CMS | 355 | Consumer Culture |
| CMS | 370 | Media and Social Change |
| CMS | 380 | Film Genres |
| CMS | 384 | Film and Cultural Studies |
| CMS | 394 | Theories of Film |
| CMS | 486 | Women in Film |
| CMS | 490 | Theories of Mass Communication |
| ENG | 244 E | Introduction to Cultural Studies |
| PHI | 211 | Media Ethics |
| IV. Media Production (6 credit hours) |  |  |
| Select One: |  |  |
| CMS | 190 | Introduction to Media Production/CMS 191 Lab |
| ITT | 281 | Web Site Development |
| Select One: |  |  |
| CMS 220 | Topics in Media Production I |  |
| CMS | 320 | Topics in Media Production II |
| CMS | 335 | Studio Video Production |
| CMS | 340 | Field Video Production/CMS 341 Lab |
| CMS | 440 | Advanced Video Production/ CMS 441 Lab |
| ITT | 241 | Information and Communication Technology |
| ITT | 342 | Graphic Communications and Publishing |
| ITT | 343 | Desktop Publishing |
| ITT | 344 | Digital Audio and Video Technology |
| V. Senior Experience (6 credit hours) |  |  |
| CMS | 400 | Senior Project (3 credits) |
| CMS 450 | Service Learning Practicum (3 credits) |  |
| VI. Electives (6 credit hours) |  |  |
| Media studies majors may select any two courses offered by the Department |  |  |
| as long as they have met the prerequisites. The exceptions are internships and |  |  |
| independent studies. These count toward the total number of credits need for |  |  |
| a bachelor of arts degree, but not as electives in the major. |  |  |

## CMS 102J Introduction to Communication

This course provides students with an overview and brief history of the field of communication, introduces them to theory development and the research process, and illustrates how communication theories can be applied to everyday life. Students will explore communication in a variety of contexts, including intrapersonal, organizational, intercultural , and mass communication.

Cr 3.

## CMS 103 Introduction to Media Studies

This course examines the historical, philosophical, technological, economic, political, and social aspects of print (book, magazine, and newspapers) and electronic media (radio, television, film, sound recordings, and the Internet). In addition, the effect of mass media will be explored. Prerequisite: media studies or communication major.

Cr 3.

## CMS 130J Interpersonal Communication Skills

Blending research and theory in interpersonal communication, this course provides a thorough introduction to the subject while emphasizing skill development and application. Among the topics to be covered are perception, listening, verbal and nonverbal communication, conversational skills, culture, stages of relational development, and the role of the self in each of these topics. Students will be asked to expand their critical thinking abilities in these areas, thereby enhancing their personal empowerment as a communicator with varied types of individuals.

Cr 3.

## CMS 150W The Writing Process

This course provides students with professional writing skills through practice in techniques and strategies used in a variety of media writing applications. There is a strong emphasis on the utility of writing as a tool of communicating information, interpreting media content, and constructing meaning. Prerequisites: CMS 102J, CMS 103, college writing, and communication or media studies majors.

Cr 3 .

## CMS 190 Introduction to Media Production

This course will examine the phases of production and design associated with studio production, video field production, and multimedia production. Course content will also explore media aesthetics. Prerequisites: CMS 102J, CMS 103, and communication or media studies major.

Cr 3.

## CMS 191 Introduction to Media Production Lab

Various production exercises and assignments to illustrate the principles and theories presented in CMS 190. Prerequisite: concurrent enrollment in CMS 190.

Cr 1.
CMS 200 Research Methods in Communication
This course introduces students to methods of inquiry found in the communication and media studies research literature. These methods include
experimental design, survey research, textual analysis, and ethnography. The course examines the underlying philosophical assumptions associated with these methodologies as well as their unique strengths and limitations. Students' conceptual understanding of these methodologies and their ability to become critical consumers of research findings are the major objectives of the course. Prerequisite: communication or media studies major, CMS 102J.

Cr 3.

## CMS 205 Topics in Media Writing I

A selection of courses varying in content from term to term. May be repeated for credit when topics vary. Students should consult their media studies advisor for detailed descriptions. Prerequisites: communication or media studies major, CMS 102J and CMS 103.

Cr 1-3.

## CMS 210 Topics in Media Criticism I

A selection of courses varying in content from term to term. May be repeated for credit when topics vary. Students should consult their media studies advisor for detailed descriptions. Prerequisites: communication or media studies major, CMS 102J and CMS 103.

Cr 1-3.

## CMS 220 Topics in Media Production I

A selection of courses varying in content from term to term. May be repeated for credit when topics vary. Students should consult their media studies advisor for detailed descriptions. Prerequisites: communication or media studies major, CMS 102J and CMS 103.

Cr 1-3.

## CMS 225 Screenwriting I

In this course, students will learn the process of writing scripts for films. A variety of concept development strategies, writing exercises, script examples, and screenings will be used to encourage students to develop their creative writing skills. Emphasis will be placed throughout the class on the process of screenwriting, from idea formation through writing and revision. Each student will produce a script for a short film. Prerequisites: communication or media studies major, CMS 102J and CMS 103.

Cr 3 .

## CMS 255 Business and Professional Communication

Designed to provide students with essential communication skills for business and other professional settings, the course covers interpersonal, group, and public communication. These skills include listening actively, giving and receiving constructive feedback, interviewing others, leading groups, negotiating, and making effective public presentations. The course also includes discussions of gender, cultural diversity, and ethics in the workplace.

Cr 3.

## CMS 250W Critical Thinking and Writing

This course will examine various discourses that pertain to mass media, especially those following on
the ways creator/audience/critic relationships determine the content of mediated messages. Students will develop literacy in a number of fields (cultural theory, media writing, and production) and build a portfolio of creative and analytical work that is broad in scope and substantive. Prerequisites: CMS 102J, CMS 103, communication or media studies major, or by instructor's permission.

Cr 3.

## CMS 265 Intrapersonal Communication

This course examines our ability to use what we know and feel in order to send, receive, and store information. Whether stimuli come from an external source or from within the self, the focus of intrapersonal communication is on the ways in which we process those stimuli, our ability to make sense out of our experiences, to remember, to retrieve information from memory, and to create messages at whatever level of consciousness, and no matter how many people are involved, in face-to-face or mediated communication. Prerequisites: communication or media studies major, CMS 102J and CMS 103. Cr 3.

## CMS 272 Persuasion

A course designed to help students understand the basic principles of persuasion. The course deals with persuasion as a social phenomenon. The perspective from which the course is offered is the analysis of persuasion as a behavioral process. As such, the course will investigate the social science research that relates to persuasion. Students will examine the attempts made by others to persuade them, as well as the attempts they make to persuade others. Further, the course will deal with the issue of ethics in persuasion. Prerequisites: communication or media studies major, CMS 102J and CMS 103.

Cr 3.

## CMS 274W Writing for the Media

This writing-intensive course is designed to provide students with an overview of media writing. Students will be introduced to radio and television commercial writing, broadcast journalism, and fiction and non-fiction scriptwriting. Prerequisites: communication or media studies major, CMS 102J and CMS 103.

Cr 3.

## CMS 275 Theories of Language

The purpose of this course is to instigate thinking about the nature of language. The course is premised upon the conviction that, because language is such a central concern of so many disciplines and because various disciplines have made important contributions to our understanding of it, language can only be studied adequately via an interdisciplinary approach. The student will be introduced to some of the foremost efforts to comprehend language in the fields of psycholinguistics, philosophy, and linguistics. Through these disciplines, we intend to raise and pursue questions concerning the nature of language, its structure and function, its relation to people's perception of reality, and its relation to the mind. Prerequisites: communication or media studies major, CMS 102J and CMS 103.

Cr 3.

## CMS 284 Film Appreciation

This course will introduce the student to film aesthetics and appreciation. It assumes that the student has no knowledge of cinema beyond the moviegoing experience. The aim of the course is to survey the fundamental aspects of cinema as an art form and communication vehicle. The power of moving images and their mass-mediated messages will be analyzed. Prerequisites: communication or media studies major, CMS 102J and CMS 103. Cr 3.

## CMS 294 Visual Communication

The purpose of this course is to enhance understanding of TV processes by introducing students to several basic visual aspects of reality as mediated through a camera lens. Topics covered will include techniques of lighting, camera angles, perspective, shot distance, cutting to continuity, and montage. Students will use 35 mm cameras to produce assignments on color slides. These will be used in class discussion in conjunction with illustrations taken from magazines that demonstrate the same techniques. In addition to learning some rudiments of visual language, students will examine visual persuasive strategies. The course is open to all communication majors who have access to a 35 mm camera with manual controls. Automatic camera controls are optional. Prior experience with photographic procedures is helpful but not necessary since all students will receive instruction leading to a working knowledge of photographic techniques. Prerequisites: communication or media studies major, CMS 102J and CMS 103.

Cr 3.

## CMS 300 Topics in Media Writing II

A selection of courses varying in content from term to term. May be repeated for credit when topics vary. Students should consult their media studies advisor for detailed descriptions. Prerequisites: communication or media studies major, CMS 102J and CMS $103 . \quad \mathrm{Cr}$ 1-3.

## CMS 303 Media Effects

This course will examine the effects of mass media upon individuals and societies. It will explore such questions as who is affected, what effects occur and how much, which media content is involved, and what situations make effects more or less likely to take place. Prerequisites: CMS 102J, CMS 103, and a communication or media studies major. Cr 3.

## CMS 305 Writing Opinion: Editorials and Columns

This is a writing intensive course that provides students with the basic skills for writing editorials, columns, and journalistic essays. The emphasis is on economical, persuasive, and strongly argumentative styles of writing. Students will read, analyze, and discuss throughout the semester the work of a leading U.S. essayist/columnist. Prerequisites: CMS 102J and CMS $103 . \quad$ Cr 3.

## CMS 310 Topics in Media Criticism II

A selection of courses varying in content from term
to term. May be repeated for credit when topics vary. Students should consult their media studies advisor for detailed descriptions. Prerequisites: communication or media studies major, CMS 102J and CMS 103.

## CMS 315 Broadcast Newswriting

This course introduces the basics of newswriting for television. It stresses brevity and conversational style of writing. Students will learn how to write TV news story scripts, beginning with simple news scripts (readers) and closing with complex scripts (packages). By providing the basics, the course prepares students for an internship with a broadcast news organization. It also offers practical advice on obtaining a job in broadcasting. Prerequisites: CMS 102 J and CMS 103.

Cr 3.

## CMS 320 Topics in Media Production II

A selection of courses varying in content from term to term. May be repeated for credit when topics vary. Students should consult their media studies advisor for detailed descriptions. Prerequisites: CMS 102J and CMS 103.

Cr 1-3.

## CMS 325 Screenwriting II

Students will continue to build skills in dramatic story structure, visual storytelling, character, dialogue, conflict enhancement, effective description, and theme development. Each student will produce a draft of a feature length screenplay. Prerequisite: CMS 225.

Cr 3 .

## CMS 335 Theories of Interpersonal Communication

A study of the current thinking in interpersonal communication which emphasizes specific theories of human interaction. Students will be exposed to research in the interpersonal setting and will apply findings to their personal relationships. The course will help students foster effective traditional and nontraditional relationships with a variety of people. Prerequisites: CMS 102J and CMS 103.

Cr 3.

## CMS 332 Communication in the Family

This course examines the role of communication in various family types. Students will be introduced to research and theory on the family and will apply findings to their own lives. Topics covered will include family satisfaction, communication rules, decision making, values, structures, autonomy, and conflict. Students will be asked to draw upon their family backgrounds for analysis and discussion. Prerequisites: CMS 102J and CMS 103. Cr 3.

## CMS 340 Field Video Production

This course is primarily concerned with the development of critical evaluation skills needed in assessing and analyzing the video medium as a communication vehicle. Students will engage in actual video production projects. Prerequisite: CMS 190 and CMS 191.

Cr 3 .

## CMS 341 Field Video Production Lab

This lab will provide students with hands-on experience with digital video cameras, production equipment, and digital, non-linear editing software. Students must concurrently be enrolled in CMS 340. Prerequisites: CMS 190 and CMS 191. Cr 1.

## CMS 345 Small Group Communication

This course is designed to familiarize students with the theories and techniques associated with group behavior. The course explores the topics of leadership, conflict resolution, group climate, and decision making. Through simulations and exercises students learn methods for analyzing group process and their own behavior. Students' findings are reported in preliminary and final papers. Prerequisites: CMS 102J and CMS 103. Cr 3.

## CMS 350 The Internet and Society

This course explores the worldwide network of computers linked to form a new medium of communica-tion-the Internet. Course content will include the computer as a tool of communication, and how the Internet influences communication in such ordinary areas of life as work, interpersonal relations, and education. Students must have access to the Internet to participate in this course. Prerequisites: CMS 102J and CMS 103 or instructor permission. Cr 3.

## CMS 355 Consumer Culture

This course explores U.S. commercial culture from historical and theoretical perspectives that privilege media and advertising/marketing. It engages critical perspectives that question consumer culture. The course focuses on the historical development of consumer culture, and how identity, the environment, and economy, are impacted and shaped by it. Prerequisites: CMS 102J AND CMS 103 and communication or media studies major.

Cr 3.

## CMS 370 Media Social Change

This course analyzes how news media coverage affects social change. Students explore how and why the media cover social movements the way they do, and look closely at news coverage of the civil rights, black power, antiwar, women's and men's movements. Both print and TV news are examined through readings, discussion, and original research. Prerequisites: Prerequisites: CMS 102J and CMS 103 and communication or media studies major. Cr 3 .

## CMS 374 Media Criticism and Aesthetics

This course introduces students to the variety of critical approaches applied to the analysis of media. The content of this course will focus on traditional and contemporary analysis of media. The aim of this course is to provide a critical context for the consumption of media content. Prerequisites: CMS 102J and CMS 103 and communication or media studies major.

Cr 3 .
CMS 375 Meaning and Communication
This course examines the assignment of meaning to
verbal behavior, especially conversational exchange. Researchers have paid special attention to the ways in which words and actions take on meaning in context. We will focus on the full communicative event involving talk, i.e., context, pragmatics, grammatical structures, conversational structures, and types of meaning. A central question of the course is: How do people interpret what other people say? The course makes use of close reading and discussion of theory as well as the collection and analysis of naturally occurring spontaneous spoken and written discourse. Prerequisites: CMS 102J and CMS 103.

Cr 3.

## CMS 380 Film Genres

This course will explore a genre found in film history. The genre selected for any given semester could be taken from such established ones as science fiction, horror, screwball comedies, musicals, or film noir. May be repeated for credit when topics vary. Prerequisites: CMS 102J, CMS 103, and CMS 284 and communication or media studies major. Cr 3.

## CMS 384 Film and Cultural Studies

This course will investigate how the discipline of cultural studies can be applied to the analysis and criticism of film. Students will read influential essays by writers such as Roland Barthes, Stuart Hall, and Teresa de Lauretis and discuss the implications of these writings for the study of the film medium. During the semester, students will view and critique films from a cultural studies perspective. Prerequisites: CMS 102J, CMS 103, CMS 284 and communication or media studies major. Cr 3 .

## CMS 385 Intergenerational Communication and the Internet

There are three major components to this course: 1) mentoring a senior citizen who is learning to use the Internet; 2) learning about mentoring through handson experience, reading, writing, and discussion of the process; and 3) writing a research paper on a topic relevant to intergenerational communication. Students in this course will mentor students enrolled in the Osher Lifelong Learning Institute course, Internet for Seniors (or other similar course). In addition, each student will read research on intergenerational communication and write a research paper. Prerequisites: CMS 102J and CMS 103. Cr 3.

## CMS 390 Theories of Organizational Communication

This course is designed to introduce students to organization theory and behavior through the medium of metaphor. Using different metaphors, the course draws attention to significant aspects of the process of organizing, and provides a means for understanding and managing organizational situations. Students are responsible for conducting onsite field studies and preparing written and oral presentations of their findings. Prerequisites: CMS 102 J and CMS 103.

Cr 3.

## CMS 394 Theories of Film

The emergence and evolution of the film medium are traced through the writings and teachings of both the classic and the modern theorists/filmmakers, from several perspectives: humanistic, ideological, and technical. The course focuses on the contributions of historical trends, film genres, major schools of thought, and the works of selected individuals in shaping a concept of what the medium of film is, how it operates as a language, how it relates to reality and what functions it serves. Students will apply these notions in their examination of the often conflicting relationships among the various theories as well as between film theory and film criticism. Prerequisites: CMS 102J, CMS 103, CMS 284 and major in communication or media studies. Cr 3.

## CMS 400 Senior Project

This course offers graduating seniors in media studies an opportunity to complete a substantive piece of work in preparation for graduate work or professional placement. Students are also required to complete a media portfolio (résumé, personal narrative, and sample media-related work). Students will present their work to an audience of faculty and peers. Students will further develop career strategies by participating in professional development workshops. Prerequisites: CMS 102J, CMS 103, media studies major, and senior standing.

Cr 3.

## CMS 420 Communication and Cognition

A seminar designed to explore the relationship between communication and thought processes. The nature of consciousness is explored through a consideration of the acquisition, retention, and retrieval of information. Special attention is given to experimental analysis of thought processes. Prerequisites: CMS 102J, CMS 103, and junior or senior standing.

Cr 3.

## CMS 430 Communication Internship

An in-depth experience in specific areas of communication acquired in the field. Students will focus their efforts in an area related to their choice of communication expertise (i.e., organizational communication, mass communication, interpersonal communication). Prerequisites: CMS 102J, CMS 103. and a precise definition of the project and director's consent. Pass/fail only. Restricted to communication majors, or permission of the instructor. Cr var.

## CMS 432 Topics in Interpersonal Communication

This seminar is designed to investigate significant issues in interpersonal communication. The course will be theoretical in nature, exploring a particular topic in depth each semester. Topics vary from semester to semester. Such topics as conversational analysis, friendship, deception, relationship termination, and conflict may be selected for the course. A research project is required. Prerequisites: CMS 102J, CMS 103, CMS 200, and CMS 330. Cr 3.

## CMS 440 Advanced Field Video Production

This course continues to explore the concepts introduced in MES 340 and MES 240. Students will investigate pre-production planning, production techniques, and post-production execution in order to communicate clearly in the video medium. More complex assignments will be given to hone skills in writing, directing, and producing. Prerequisites: CMS 190, CMS 191, CMS 340, and CMS 341. Cr 3.

## CMS 441 Advanced Field Production Lab

This lab will focus on advancing the skills and concepts taught in MES 340/341. This lab will consist of workshops and exercises in image and sound acquisition using digital video cameras and production equipment, as well as advanced video editing principles and techniques using editing software. Students must be concurrently enrolled in CMS 440. Prerequisites: CMS 190, CMS 191, CMS 340, and CMS 341.

Cr 4.

## CMS 450 Service Learning Practicum

This course gives students the opportunity to work with organizations outside the University in a professional context. Students will be divided into groups and will work with nonprofit organizations to develop projects, such as a multimedia presentation, a video, or a research report. Prerequisites: CMS 102J, CMS 103, media studies major, and senior standing.

Cr 3 .

## CMS 455 Computer-Mediated Communication

## Research

This senior seminar makes use of the Internet for two main purposes: (1) to gather research findings, and (2) to present research findings as a home page. Students will learn how to use the Internet for its scholarly resources and how to express their research report as a home page. In essence, students will use a new medium to do an old job: to read and critically evaluate research, and to present a summary or final research report. Research found online and offline will be critiqued. Prerequisite: CMS 102J, CMS 103, and junior/senior standing. Cr 3.

## CMS 475 Discursive Practices

This is a senior seminar in which each student designs and carries out an empirical research project to study "talk activities that people do," such as per-son-referencing practices, or narratives; it may focus on single features that may be named and pointed to (e.g., speech acts) or it may reference sets of features (dialect, perspective). Students will examine how identities are associated with talk activities. Discursive practices may focus on something done by an individual or they may refer to actions that require more than one party. Prerequisites: CMS 102J, CMS 103, communication major, and junior/senior standing. Cr 3.

## CMS 484 Topics in Film

This course is a senior seminar designed to explore a particular topic in film communication. The pro-
fessor designated to teach the course during any given semester will select an area of interest to explore with students. Such topics as film and society, women in film, and the silent cinema are areas that could be selected. Class sizes are limited in order for students to participate in discussion and contribute to the group's synergy. Prerequisites: CMS 102J, CMS 103, CMS 284 and junior or senior standing in the communication or media studies major.

Cr 3.

## CMS 485 Sex-Related Differences in Communication

This seminar on sex-related differences in communication is designed primarily to evaluate critically the research literature. It is concerned with whether or not males and females differ in their actions of sending, receiving, and interpreting messages. The course examines gender-role stereotyping, empirical findings on sex-related differences in communication behavior (e.g., talking, interpersonal style, touching, eye contact, etc.), and explanations for sex differences. Critiques of some major theoretical positions are discussed (e.g., sex differences in dominance, aggression, cognition, and brain organization). Prerequisites: CMS 102J, CMS 103, and junior or senior standing.

Cr 3.

## CMS 486 Women in Film

This course will explore the depiction of women in film. Films will be analyzed in the context of the political and ideological subtexts they contain. The purpose of the analysis is to understand a film and to be able to relate it to the society that it reflects and sometimes affects. Prerequisites: CMS 102J, CMS 103, and junior or senior standing.

Cr 3.

## CMS 490 Theories of Mass Communication

A discussion of significant factors related to communication theory. Contemporary theories of mass communication, the mass media, audience analysis, and the role of mass communication in society will be among the topics examined in the course. Students elect to examine an aspect of mass communication that is of interest to them, and present their findings in research papers and projects. Prerequisites: CMS 102J, CMS 103, and junior or senior standing.

Cr 3.

## CMS 491 Independent Study

A concentrated program of research or study on a particular topic approved and guided by a Department faculty member. The student and faculty member will have periodic conferences throughout the semester to discuss the progress and outcomes of the student's work. Prerequisites: communication or media studies majors, junior or senior standing, and faculty approval.

Cr 3-6.

## CMS 492 Internships in Media Studies

This course offers students the opportunity to develop media expertise by working with professionals in the field. Typically, the intern will work closely with
a mentor in a sponsoring organization to gain practical skills and to develop strategies for transitioning from college to professional placement. An application process is required. Prerequisites: CMS 102J, CMS 103, media studies major, junior/senior standing. $\quad \mathrm{Cr}$. Variable (1-6 per internship; 15 total).

CMS 495 Theories of Communication
This course is designed for upperclass students who
are majoring or minoring in communication studies. Based on a seminar format, students in this course will explore in depth several advanced theories of communication, mechanistic through interactive, with examples and application for each. Prerequisites: CMS 102J, CMS 103, CMS 200, communication major with a minimum of 90 credit hours.

Cr 3.

# Criminology 

Chair of the Department: David C. Powell, 1 Chamberlain Ave., Portland Professors: Beirne, Bjelic, Messerschmidt, Powell; Associate Professor: Wachholz

The Department of Criminology offers a four-year program leading to a bachelor of arts degree in criminology. The program provides students with a liberal arts education whose focus is the complex relations among crime, law, and society, and which emphasizes the social sciences. The curriculum is a rigorous series of courses which provides students with a comprehensive knowledge of crime and crime control in contemporary, historical, and comparative perspective. The core of the curriculum is an integrated set of required courses. These courses are designed as a cumulative set of experiences and must be taken in sequence. Elective courses enable students to place their criminological interests in a broader perspective.

Many students in the program are interested in social and human service occupations related to criminal, juvenile, and social justice. The program also prepares students for a wide variety of other career options and provides an excellent basis for graduate study in criminology, other social sciences, and law.

The Department is well-known for its critical perspectives and published research on criminological theory, gender, multi-cultural, and comparative analyses. The faculty have won regional, national, and international awards for scholarship, teaching innovations, and community service. In addition, all faculty members have had significant professional training outside the United States, including Australia, Britain, Sweden, and the former Yugoslavia.

While some students enroll in the major expecting to learn law enforcement skills and strategies, psychological profiling, forensic investigation, and approaches to prosecution, this is not the program's focus. Criminology courses examine social structural foundations of crime, deviance, and social harm, including the social control institutions, as well as the power dynamics involved in defining crime, prosecuting crime, and official sanctions for deviance and those "at risk." The dynamics of racism, sexism, class inequality, and heterosexism as they impact perceived realities of "crime" are also systematically explored in the program's courses. The notion that "crime" is simply about breaking the law is not accepted at face value; the concept and the broader discipline of criminology as it relates to faculty research, teaching, and community service are examined.

## Internships

The Department of Criminology offers a strong and established internship program. Credit internships actively seek to bring together student academic work and community involvement. Students interested in an internship placement are encouraged to meet with the internship coordinator.

## Programs and Requirements

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 36 .

Required Courses ( 24 credits)
CRM 100J Introduction to Criminology
CRM 216 White-Collar Crime

CRM 220 Research Methods in Criminology
CRM 301 Criminological Theory
CRM 317 Gender and Crime
CRM 330 Crime and Social Control
CRM 334 Law and State
CRM 401 Comparative Criminology
Elective Courses ( 12 credits)
Students are also required to choose four elective courses (12 hours) from the following courses:

Criminology
CRM 217 Crime in Maine
CRM 222 Field Studies in Informal Social Order
CRM 225 Crimes against the Environment
CRM 230 Introduction to the Criminal Justice System
CRM 310 Classical Theories of Social Order
CRM $320 \quad$ Film and Social Order

| CRM | 325 | Domestic Violence |
| :--- | :--- | :--- |
| CRM | 327 | Animal Abuse |
| CRM | 337 | Youth Crime |
| CRM | 340 | Criminal Law |
| CRM | 345 | Criminology in Sweden |
| CRM | 350 | Topics in Criminology |
| CRM | 360 | The Death Penalty |
| CRM | 370 | Reflexive Criminology |
| CRM | 375 | Media, Crime, and Criminalization |
| CRM | 380 | Restorative Justice |
| CRM | 390 | Independent Projects |
| CRM | 395 | Internship |
| CRM | 402 | Senior Seminar |

## Major Credit and Minimum Grade Policy

Courses to be taken for major credit at other colleges and universities must be approved in advance. Grades of C or better must be achieved in all courses for major credit. Courses taken pass/fail are not acceptable in the major. Before taking upperlevel criminology courses, students must have completed CRM 100J with a grade of C or better. To complete the major successfully, students must have achieved a grade of " C " or better in all courses taken for the major.

## Curriculum Summary and Guide

The criminology curriculum is a series of structured and integrated courses that should be taken in sequence if possible.

| Year | Required Courses | Elective Courses |
| :---: | :--- | :--- |
| 1 | Introduction to Criminology |  |
| 2 | White-Collar Crime |  |
| 3 | Research Methods in Criminology <br> Crime and Social Control | Electives |
|  | Gender and Crime <br> 4 | Criminological Theory <br> Law and State <br> Comparative Criminology |

## Transfer Students

Transfer students and students contemplating transfer into the Criminology Department are urged to meet with the Department chair as early as possible for an evaluation of their progress and their requirements in the major.

Supplementary information is published each semester by the Criminology Department to assist students in planning their course schedules. The information includes a summary of major courses, listings, and descriptions of special courses, and general information for majors.

For more information, write to: Administrative Assistant, Criminology Department, University of Southern Maine, 96 Falmouth Street, P.O. Box 9300, Portland, Maine 04104-9300 or telephone (207) 780-4105.

## Minor in Criminology

The number of credit hours required for the minor is 18 . A grade of " C " or better is required in any course used for criminology minor credit.

| Required Courses |  |  |
| :---: | :---: | :---: |
| CRM | 100J | Introduction to Criminology |
| CRM | 216 | White-Collar Crime |
| CRM | 220 | Research Methods in Criminology |
| Choose ONE of the following: |  |  |
| CRM | 301 | Criminological Theory |
| CRM | 317 | Gender and Crime |
| CRM | 330 | Crime and Social Control |
| CRM | 334 | Law and State |
| CRM | 401 | Comparative Criminology |

Choose any TWO CRM courses.

## CRM 100J Introduction to Criminology

This course focuses on the nature of crime and on problems concerning its measurement and distribution. The course examines some of the popular images of crime in the media and elsewhere, the creation and utility of official and unofficial crime statistics, and theories about the causes of crime. No prerequisites. A grade of "C" or better is required in this course in order to continue in the major. Cr 3.

## CRM 216 White-Collar Crime

This course provides an analysis of different criminological perspectives on white-collar crime, and focuses on some specific types of white-collar crime: occupational crime, corporate crime, syndicated crime, and political crime. Prerequisite: CRM 100 J or permission.

## CRM 217 Crime in Maine

An introduction to crime and penal policies in Maine, including official and unofficial crime statistics; common crimes; white-collar crimes; and selected aspects in crime control. The course presents interstate comparative analysis, and several guest lectures by Maine speakers. Prerequisite: CRM 100J or permission.

Cr 3.

## CRM 220 Research Methods in Criminology

This course is an introduction to methodological issues in criminology. The emphasis is on critical evaluation and application of the basic instruments of inquiry. Students will learn how to "do" criminology, as well as how to assess existing criminological literature. Prerequisite: CRM 100J or permission.

Cr 3.

## CRM 222 Field Studies in Informal Social Order

This course will study informal social order as the tacit framework for the formal legal order. This will be an empirical test of criminological theories introduced in CRM 215. Through different methods of field research, students will be asked to observe and analyze the informal order of legal institutions such as courtrooms, prisons, and police stations. Prerequisite: CRM 100J or permission. Cr 3.

## CRM 225 Crimes against the Environment

This course is designed to expose students to many of the prominent controversies and challenges associated with defining, measuring, and responding to crimes against the environment. Central to the course is an examination of the relationship between socioeconomic power and its effect on responses to environmental change. Prerequisite: CRM 100J or permission.

Cr 3.

## CRM 230 Introduction to the Criminal Justice System

This course is designed to provide students with an understanding of the criminal justice system in the United States from a sociological perspective. Students will become familiar with criminal justice
functions such as policing, trials, defense and prosecution of cases, and corrections. Also, students are required to prepare a mock trial of a criminal case. Prerequisite: CRM 100J or permission .

Cr 3 .

## CRM 301 Criminological Theory

This course focuses on the development of criminological theory from 1930 to present. The course is historical in nature and addresses such fundamental problems as why certain behavior is defined as criminal, the causes of crime, and the consequences for the individual of being labeled as a criminal. Prerequisite: CRM 100J or permission.

Cr 3.

## CRM 310 Classical Theories of Social Order

This course will examine how the concept of social order and the invention of criminology arose simultaneously. Classical social theories of the Enlightenment and Modernity will be used to study the origin of the modern state and the criminalization of various social groups. Prerequisite: CRM 100 J or permission.

Cr 3.

## CRM 311 Contemporary Theories of Social Order

This course is a continuation of CRM 310. After reexamining classical theories, the course will introduce students to contemporary theories of social order. The theoretical focus will be on crime and criminalization as forms of social action. Prerequisites: CRM 100J or permission. Cr 3.

## CRM 317 Gender and Crime

This course concentrates on gender and its relation to crime. It explores such issues as histories of gender inequality, the gendered character of criminological theory, and how gender is related to a variety of crimes such as rape, violence in the family, crimes by women, property crimes, and corporate crime. Prerequisite: CRM 100J or permission.

Cr 3.

## CRM 320 Film and Social Order

The intent of this course is to engage in a cross-cultural study of the relationship of film to social order and crime. Films construct images about social reality. The ways in which these images present and interpret this relationship will be examined from various analytical standpoints, including ethnomethodology, semiology, and post-modernism. Prerequisite: CRM 100J or permission. Cr 3.

## CRM 325 Domestic Violence

This course explores contemporary theoretical and policy debates on domestic violence as a social problem and crime. Topics include partner abuse, child abuse, and elder abuse. The definition and measurement of domestic violence are analyzed. Comparison of legal and community responses to domestic violence is emphasized. Special attention is given to economic and ethnic diversity as they relate to domestic violence. Prerequisite: CRM 100J or permission.

Cr 3.

## CRM 327 Animal Abuse

Key questions about the nature and forms of animal abuse are subjected to interdisciplinary inquiry spanning sociology, criminology, moral philosophy, and law. The course begins with individualized forms of animal abuse, such as cruelty, neglect, and sexual assault. It then examines institutionalized forms of abuse in research, zoos, hunting, sport/entertainment, and food production. Attention is also given to the link(s) between animal abuse and interhuman violence. Prerequisite: CRM 100J or permission..

Cr 3.

## CRM 330 Crime and Social Control

This course explores theoretical and practical issues of modern systems of social control, including punishment, policing, prisons, parole, probation, and the role of the state in social control. The history of Western social control systems is stressed, with emphasis on race, gender, and class effects. Students are required to engage in experiential learning. Prerequisites: CRM 100J or permission. Cr 3.

## CRM 334 Law and State

This course explores the relationship between the United States's social welfare policies and contemporary crime control problems and practices. It includes an examination of the United States's residual welfare state, theories on social welfare development, and the Nordic model of crime prevention, which is based on the premise that crime can be reduced through social policies designed to lessen structural inequalities. Prerequisite: CRM 100 J or permission.

Cr 3.

## CRM 337 Youth Crime

This course provides an overview of justice issues as they affect juveniles. Theoretical explanations for youth crime as well as the emergence of both "adolescence" and "delinquency" as socially constructed concepts will be examined. In general, the course adopts an historical approach to youth crime. Prerequisite: CRM 100J or permission. Cr 3.

## CRM 340 Criminal Law

This course offers students an intensive study and review of statutory law, case law, and criminal procedure. Substantive topics covered include responsibility; insanity; grand jury; 4th, 5th, 8th and 14th Amendment issues; pre-trial; trial; sentencing and appeals. Materials are drawn from U.S. Supreme Court and Maine Judicial Court opinions. Prerequisites: CRM 100J or permission.. Cr 3.

## CRM 345 Criminology in Sweden

This special summer course in Sweden provides students with the opportunity to live in, study, and experience another culture and to gain an understanding of crime, criminology, and social control in another country. Visits will be made to the police department and court system in Stockholm and to several prisons in other cities. Lectures will be pro-
vided by sociologists at the Criminology Institute at the University of Stockholm, as well as by a variety of lawyers, judges, and political party leaders. Offered Summer Session only. Prerequisite: CRM 100 J or permission.

Cr 6.

## CRM 350 Topics in Criminology

Specially developed courses exploring areas of interest and concern in depth. Among these topics currently considered are war crimes, race and crime, ethnomethodology, homicide, visual criminology, film and crime, self and crime, sexuality and crime, and social theories of non-violence. May be repeated for credit. Prerequisite: CRM 100J or permission.

Cr 3.

## CRM 360 The Death Penalty

This course is designed to provide students with historical and current information on the death penalty in the United States. The following topics are covered: historical applications, deterrence, racial and gender bias, execution of innocent people, and the legal, political, economic, and moral perspectives of the death penalty. Prerequisite: CRM 100J or permission.

Cr 3.

## CRM 370 Reflexive Criminology

A reflexive approach to criminology examining criminological theories and perspectives as cultural and ideological products. Using cross-cultural and historical comparisons, the course analyzes the conditions under which "criminology" is produced. We also explore the connections between the product of the "criminology industry" and the reproduction of broader cultural and ideological patterns. Prerequisites: CRM 100J or permission. Cr 3.

## CRM 375 Media, Crime, and Criminality

It is important to examine how the media assemble, select, and disseminate "crime knowledge" to audiences and thus influence their understanding of crime. The course uses a social constructionist approach to explore structural, institutional, and interactional contexts of media production. Prerequisite: CRM 100J or permission. Cr 3.

## CRM 380 Restorative Justice

This course explores theory and research on restorative justice, which is an international movement of "progressive" reform that claims to reduce social inequalities generating crime. Students explore theoretical and empirical developments in restorative justice and examine programs claiming restorative components, such as victim-offender mediation and diversionary conferences. Prerequisites: CRM 100J or permission.

Cr 3.

## CRM 390 Independent Projects

Individually or collectively arranged reading and/or research for juniors and seniors under the direction of a faculty member. May be repeated for credit. Prerequisites: CRM 100J and permission of instructor.

Cr var.

## CRM 395 Internship

The course is designed as a field experience/reflection opportunity for upper-level criminology majors with substantive background or coursework in the area of internship placement. It also provides a work/action experience and insight into professional roles in a variety of community agencies and organizations. The emphasis is on the application of social science perspectives, substantive knowledge, and methodologies to understand a particular organizational situation. In addition to field placement, students are expected to meet for a series of internship seminars, for which readings and reports will be required. Also, students must have completed 53 or more credit hours by the end of the semester in which they register for the course. Contact Department internship coordinator for details. Prerequisites: CRM 100J or permission. Cr 3-6.

CRM 401 Comparative Criminology
This course focuses on the application of U.S. criminological theory in cross-cultural contexts. Specific emphasis is given to the problems of cultural relativism and intellectual imperialism while providing an integrative senior experience for majors. Prerequisites: CRM 100J, CRM 220, and senior class standing. Cr 3.

## CRM 402 Senior Seminar

This course is intended to furnish senior criminology majors with an opportunity to reflect on and integrate the material in their other major courses. Its focus is a major research project. The course combines individualized instruction, small group meetings, and seminars. Prerequisites: CRM 100J, CRM 220 and junior or senior class standing. Cr 3.

## Economics

Chair of the Department: Joseph Medley, 11 Chamberlain Avenue, Portland Professors: Feiner, Hillard, Roberts; Associate Professors: Goldstein, Mamgain, Medley; Assistant Professor: Bouvier

The undergraduate program in economics provides practical preparation for a variety of careers as well as for graduate study in economics, business administration, public policy, and law. Economics is a social science and as such is best studied in the context of broader exposure to the liberal arts and sciences.

To be eligible for a degree, a student must complete 120 credit hours fulfilling the University's Core curriculum requirements and all requirements for the major. Note that only one course carrying the prefix ECO can be used to satisfy both Core curriculum and economics major requirements.

The Department offers two different undergraduate degree programs (bachelor of arts, bachelor of science), which allow students to choose the combination of courses most appropriate for their future plans.

## Programs and Requirements

## Bachelor of Arts in Economics

Choose either Track A ( 57 or more credits) or Track B ( 58 or more credits); both tracks have the same major prerequisites and major requirements. Track A is recommended for students interested in a traditional liberal arts economics education. Track B is recommended for students interested in graduate study in economics or related policy fields.

Major Prerequisites (6 credits)
ECO 101J Introduction to Macroeconomics
ECO 102J Introduction to Microeconomics
Major Requirements (9 credits)
ECO 301 Intermediate Macroeconomics
ECO 302 Intermediate Microeconomics
ECO 303 Political Economy
Track A:
Other Requirements (18 or more credits)
Select one of the following courses:
MAT 120D Introduction to Statistics
MAT 380 Probability and Statistics
Select one of the following courses:
ECO 305 Research Methods in Economics
MAT 105D Mathematics for Quantitative Decision Making
MAT 108 College Algebra
MAT 140D Pre-Calculus Mathematics
MAT 152D Calculus A
MAT 153 Calculus B
Select three of the following courses:
ANT 101J Anthropology: The Cultural View
GEO 101J Human Geography
POS 101J Introduction to American Government
POS 104J Introduction to International Relations
SOC 100J Introduction to Sociology
Select one of the following courses:
ECO 103E Critical Thinking About Economic Issues
PHI 111E Introduction to Philosophy: Philosophical Reading (and Writing)
PHI 112E/W Introduction to Philosophy: Feminist Perspectives
SOC 210E/W Critical Thinking About Social Issues
Major Electives (24 or more credits)
Select any five economics elective courses numbered 200 or above (excluding those ECO courses taken to fulfill requirements listed above).

| ECO | 220 I | U.S. Economic and Labor History |
| :--- | :--- | :--- |
| ECO | 305 | Research Methods in Economics |
| ECO | 310 | Money and Banking |
| ECO | 312 | U.S. Economic Policy |


| ECO | 315 | Economic Development |
| :--- | :--- | :--- |
| ECO | 316 | Case Studies in International Development |
| ECO | 321 | Understanding Contemporary Capitalism |
| ECO | 322 | Economics of Women and Work |
| ECO | 323 | U.S. Labor and Employment Relations |
| ECO | 324 | The Healthcare Workforce Crisis |
| ECO | 325 | Industrial Organization |
| ECO | 326 | Environmental Economics |
| ECO | 327 | Natural Resource Economics |
| ECO | 330 | Urban Economics |
| ECO | 333 | Economics and Happiness |
| ECO | 335 | The Political Economy of Food |
| ECO | 340 | History of Economic Thought |
| ECO | 350 | Comparative Economic Systems |
| ECO | 370 | International Economics |
| ECO | 380 | Public Finance and Fiscal Policy |
| ECO | 381 | State and Local Public Finance |
| ECO | 399 | Special Topics in Economics |
| ECO | 450 | Readings in Economics |
| ECO | 490 | Independent Readings and Research in Economics |

Select three additional economics electives, or up to three courses chosen from the following courses offered by other departments:

| BUS | 260 | Marketing |
| :--- | :--- | :--- |
| BUS | 335 | International Business |
| CRM | 216 | White-Collar Crime |
| FIN | 330 | International Financial Management |
| GEO | 303 | Economic Geography |
| MAT | 252 | Calculus C |
| MAT | 290 | Foundations of Mathematics |
| MAT | 295 | Linear Algebra |
| POS | 340 | The Politics of Developing Nations |
| POS | 365 | Environmental Politics and Policy |
| SWO | 350 | Social Welfare Policy |
| WST | 365 | Topics in Women, Gender, and Institutions II |
| WST | 465 | Topics in Women, Gender, and Institutions III |
| Track B: |  |  |
| Other Requirements (16 or more credits) |  |  |
| MAT | 152 D | Calculus A |
| MAT | 153 | Calculus B |
| ECO | 305 | Research Methods in Economics |
| Select: |  |  |
| Either |  |  |
| MAT | 281 | Introduction to Probability, and |
| MAT | 282 | Statistical Inference |
| Or |  |  |
| MAT | 380 | Probability and Statistics, and |
| MAT | 264 | Statistical Software Packages |

Major Electives ( 27 or more credits)
Select any six economics elective courses numbered 200 or above (excluding those ECO courses taken to fulfill requirements listed above).
Select three additional economics electives, or up to three courses chosen from other Department offerings. The following are recommended, but students may propose other upper-level courses for Economics Department approval if adequate justification is presented.

| MAT | 252 | Calculus C |
| :--- | :--- | :--- |
| MAT | 290 | Foundations of Mathematics |
| MAT | 295 | Linear Algebra |
| MAT | 350 | Differential Equations |
| MAT | 485 | Introduction to Applied Regression |
| FIN | 320 | Basic Financial Management |
| FIN | 327 | Investment Management |
| FIN | 328 | Financial Institutions and Markets |
| FIN | 330 | International Financial Management |


| GEO | 303 | Economic Geography |
| :--- | :--- | :--- |
| GEO | 305 | Remote Sensing |
| GEO | 308 | GIS Applications I |
| GEO | 408 | GIS Applications II |
| ESP | 200 | Environmental Planning |
| ESP | 305 | Community Planning Workshop |

## Bachelor of Science in Economics

The B.S. curriculum, consisting of 55 or more credits, is recommended for students interested in a liberal arts economics education with greater stress on business and quantitative skills.

Major Prerequisites (6 credits)
ECO 101J Introduction to Macroeconomics
ECO 102J Introduction to Microeconomics
Major Requirements (9 credits)
ECO 301 Intermediate Macroeconomics
ECO 302 Intermediate Microeconomics
ECO 303W Political Economy
Other Requirements ( 22 or more credits)
Select three of the following courses:

| BUS | 260 | Marketing |
| :--- | :--- | :--- |
| BUS | 335 | International Business |
| BUS | 340 | Managing Organizational Behavior |
| BUS | 361 | International Marketing |
| BUS | 365 | Consumer Behavior, OR |
| BUS | 165 J | Consumer Studies |
| BUS | 385 | Entrepreneurship and Venture Formation |
| FIN | 320 | Basic Financial Management |
| FIN | 327 | Investment Management |
| FIN | 328 | Financial Institutions and Markets |
| FIN | 330 | International Financial Management |

Choose Track A or Track B
Track A:
ACC $110 \quad$ Financial Accounting Information for Decision Making
MAT 210D Business Statistics
BUS 275 Applied Business Analysis
Select one of the following courses:
BUS 370 Management Science

BUS 375 Production/Operations Management
ECO 305 Research Methods in Economics
Students who select ECO 305 under Track A cannot also use that course to satisfy a major elective requirement.
Track B:

| ACC | 110 | Financial Accounting Information for Decision Making |
| :--- | :--- | :--- |
| MAT | 152 D | Calculus A |
| MAT | 153 | Calculus B |
| MAT | 380 | Probability and Statistics |

Major Electives (18 or more credits)
Select any four economics elective courses numbered 200 or above (excluding those ECO courses taken to fulfill requirements listed above). Take two additional economics electives, or up to two courses chosen from the following courses offered by other departments.

| CRM | 216 | White-Collar Crime |
| :--- | :--- | :--- |
| GEO | 303 | Economic Geography |
| MAT | 252 | Calculus C |
| MAT | 290 | Foundations of Mathematics |
| MAT | 295 | Linear Algebra |
| POS | 340 | The Politics of Developing Nations |
| POS | 365 | Environmental Politics and Policy |
| SWO | 350 | Social Welfare Policy |
| WST | 365 | Topics in Women, Gender, and Institutions II |
| WST | 465 | Topics in Women, Gender, and Institutions III |

## Minor in Economics

A minor in economics is available to students in any major within the University. Students wishing to pursue the minor must be in good standing with the University and submit a Declaration of Minor form to the USM Registrar. This form is available online at: www.usm.maine.edu/advising/network/formbank.php.

Requirements for a minor in economics (18 credits)
ECO 101J Introduction to Macroeconomics
ECO 102J Introduction to Microeconomics
Select one of the following courses:
ECO 103E Critical Thinking About Economic Issues
ECO $105 \mathrm{H} \quad$ A Novel Approach to Economics
ECO 106I Economic, Social, and Cultural Change
Select three 300-level or above ECO courses
All courses taken to satisfy the requirements for a minor in economics must be completed with a cumulative GPA of at least 2.0.

## Minor in Accounting

A minor in accounting is available to students in any major within the University. Students wishing to pursue the minor must obtain a copy of the Authorization for Accounting Minor Form from the School of Business, complete and return it to the School of Business advisor, signed by the student's current economics advisor. An overall GPA of 2.33 is required at the time of application.

Accounting minors need a 2.33 cumulative GPA in the five courses taken in the minor. A student may transfer to the minor up to six credit hours of comparable accounting courses, with grades of $\mathbf{C}(2.00)$ or better, from accredited institutions. The minor in accounting is 15 credit hours, and normally consists of the following courses: ACC 110, ACC 211, and three additional accounting courses. Please refer to the Department of Accounting and Finance minor in the School of Business section of this catalog for a complete listing of these courses.

## Minor in Mathematics

A minor in mathematics is available to students in any major within the University. Students wishing to pursue the minor must be in good standing with the University and submit a Declaration of Minor form to the USM Registrar. This form is available online at: www.usm.maine.edu/advising/network/formbank.php. The minor in mathematics is 22 credit hours to include the following courses: COS 160, COS 170, MAT 152D, MAT 153, MAT 290. Additionally, select two MAT courses with a second digit 5 or greater (we recommend MAT 295 Linear Algebra).

All courses taken to satisfy the requirements for a minor in mathematics must be completed with a cumulative GPA of at least 2.0.

Note also the interdisciplinary minor in labor studies, which is described in the College of Arts and Sciences section of this catalog.

## ECO 100J Introduction to Economics: Ideas and Issues

An introduction to basic economic ideas, issues, and theories for non-majors. The course surveys microeconomic and macroeconomic theories and analyzes current topics and problems of the economy. Cr 3.

## ECO 101J Introduction to Macroeconomics

An analysis of the basic characteristics, institutions, and activities of modern market economies. Topics discussed include inflation, unemployment, government monetary and fiscal policy, full employment and economic growth.

Cr 3.

## ECO 102J Introduction to Microeconomics

Introduction to the analysis of individual markets: the functioning of prices in a market economy, economic decision making by producers and consumers, and market structure. Topics discussed include consumer preferences and consumer behavior, production theory and production costs, the monopoly firm, and resource pricing. Additional topics are determined by individual instructors.

Cr 3 .

## ECO 103E Critical Thinking About Economic Issues

This course aims to develop critical thinking skills through the study of competing interpretations and analyses put forward by economists. Students will use a variety of texts, media, and activities to better understand controversial topics in economics. The specific thematic focus of ECO 103E may vary from section to section. Examples of topics which may be examined include the economics of health care, economic inequality, the global economy, and the economics of the environment. Prerequisites: ENG 100 C or equivalent.

Cr 3.

## ECO 104J The U.S. in the World Economy

Students will examine national and global economic issues through consideration and application of economic theories. They will analyze and discuss basic economic principles and viewpoints, traditional policy approaches, post-World War II transformation in the U.S. economy, the impacts of the changing global economy on various aspects of life in the United States and will develop policy responses to these issues. Prerequisites: none.

Cr 3.

## ECO 105H A Novel Approach to Economics

This course will use fiction and non-fiction to explore key issues in economic analysis and policy formation. The impact of institutional change on production, distribution, and consumption will be the principal focus of the course. Students will discuss and write about the texts; some graphical analysis will be employed. Prerequisites: none.

Cr 3 .

## ECO 106 Economic, Social, and Cultural

## Change

Students will explore connections among major socioeconomic transformations (e.g., the spread of market relations, industrialization, and new tech-
nologies), massive movements of people (from countryside to city, from one nation to another), the resulting clash of cultures, and the social construction of human worth. Students will analyze debates over human intelligence, social policy, economic performance, and the relative standards of living. Prerequisites: none.

Cr 3.

## ECO 108 Economics in the News

This introduction to economic ideas is based on current economic events as reported in a variety of news media. The principles of economics will be introduced through reading and guided discussion of economic coverage in various broadcast sources. Topics include markets, labor, business, the environment, health care, and poverty. Prerequisites: none. Cr 3 .

## ECO 220I U.S. Economic and Labor History

This course examines labor issues in the U.S. economy, combining analytical and historical perspectives. The course surveys the evolution of labor in the U.S. economy from the industrial revolution to the present, considers the history of the American worker and of the U.S. labor movement, and analyzes labor markets and their relationship to the competitiveness of the U.S. economy. Prerequisites: English competency requirement (Area C). Cr 3.

## ECO 301 Intermediate Macroeconomics

A theoretical analysis of the basic forces that cause inflation, growth, and fluctuations in economic activity. The effects on employment and other factors are thoroughly treated. Stabilization policies are examined and evaluated. Prerequisites: ECO 101J and ECO 102J, or ECO 100J and Department permission.

Cr 3.

## ECO 302 Intermediate Microeconomics

Analysis of individual markets, choice, and exchange theory: the functioning of prices in a market economy, rational decision making by consumers and producers, cost and production analysis, market structure, and theory of public goods and market failures. Prerequisites: ECO 101J and ECO 102J, or ECO 100J and Department permission.

Cr 3.

## ECO 303W Political Economy

This course provides an overview of various perspectives on the U.S. economic system, its dynamics, problems, and its relation to the political sphere. Topics may include: inequality and discrimination; growth and the environment; military spending, productivity and growth; and policies for the future. Prerequisites: ECO 101J, ECO 102J, and either ECO 301 (or concurrent) or ECO 302 (or concurrent) or permission of instructor. This course will satisfy the intensive writing requirement. Cr 3 .

## ECO 305 Research Methods in Economics

Measures of central tendency, basic probability theory, and hypothesis testing will be discussed. With a focus on economic data, the relationship between random variables will be examined using linear
regression models and computer software. Prerequisites: MAT 120D and proficiency in Microsoft Excel ${ }^{T \mathrm{M}}$ or permission of instructor.Cr 3 .

## ECO 310 Money and Banking

This course examines the structure and operation of the financial system with major emphasis on commercial banking; reviews the structure of the Federal Reserve System and analyzes the tools of policy; develops alternative monetary theories; and discusses major issues in monetary policy. Prerequisites: ECO 101J, ECO 102J. Cr 3.

## ECO 312 U.S. Economic Policy

This course examines currently perceived problems of the U.S. economy. A range of views of these problems and associated policy proposals are considered including: free market, traditional monetary and fiscal, as well as new policy approaches. Prerequisites: any 100-level ECO course. Cr 3.

## ECO 315 Economic Development

The theories and practices of interregional and international economic development. Special attention is given to developmental problems of emerging nations. Prerequisite: any 100-level ECO course.

Cr 3 .

## ECO 316 Case Studies in International Development

This course provides case studies of the issues, problems, and policies of economic development. The development experience of various countries is examined in a comparative context. Prerequisites: any 100-level ECO course.

Cr 3 .

## ECO 321 Understanding Contemporary Capitalism

This course analyzes the character and dynamics of leading contemporary capitalist economies, emphasizing historical, comparative, and institutional perspectives. These perspectives are used to address a wide range of contemporary economic issues, including national R\&D policy, financial regulation, public and private human resource investments, and organizational strategies. Prerequisites: any 100level ECO course or instructor permission. Cr 3.

## ECO 322 Economics of Women and Work

This course examines women's post-WWII experiences in paid work settings in the U.S. The class will assess a range of theories designed to explain women's access to well-paying jobs and career ladders while maintaining family responsibilities. In addition, students will consider the effectiveness of a variety of public policies for greater labor market equity. Cr 3 .

## ECO 323 U.S. Labor and Employment Relations

This course considers the evolution of 20th-century U.S. labor relations, particularly the competing fortunes of union and non-union labor relations models, as well as the impact of changing institutions on labor markets. It also surveys the evolving perspec-
tives of industrial relations theorists and practitioners. Prerequisite: English competency requirement (Area C).

## ECO 324 The Healthcare Workforce Crisis

The course examines reasons for the labor market imbalances in U.S. healthcare, comparing doctors, nurses, nurses aides, pharmacists, therapists, and technicians. Students explore the roles of each labor market segment in the problems of healthcare quality, cost, and access. Students consider potential organizational and public policy solutions to the workforce crisis. Prerequisite: any 100 -level ECO course.

Cr 3.

## ECO 325 Industrial Organization

This course investigates theories relating industrial structure to company conduct and performance. Case studies from the U.S. economy will be used to illustrate important developments in the 1970s and 1980s-internationalization, technological change, and competitiveness problems. Prerequisites: ECO 101J, ECO 102J.

Cr 3.

## ECO 326 Environmental Economics

This course considers the economic aspects of environmental issues, such as pollution and environmental degradation, environmental justice, and global climate change. In addressing each of these issues we will investigate the implications of various public policy responses such as regulation, marketable permits, and tax incentives. Prerequisite: ECO 102J or instructor permission.

Cr 3.

## ECO 327 Natural Resource Economics

In this course, we will consider the economic aspects of natural resource management and use, including the economically sustainable management of fisheries, forests, water resources, and biodiversity, with applications to Maine and beyond. We will investigate the implications of public policy responses such as regulations, marketable permits, and tax incentives. Prerequisite: ECO 102J or instructor permission.

Cr 3.

## ECO 330 Urban Economics

This computer-intensive course studies the growth and decline of urban regions. Census data are used to examine the dynamics of urban population change, with special reference to the northeastern United States. Prerequisites: ECO 102J or instructor permission.

Cr 3.

## ECO 333 Economics and Happiness

Presents the limited relationship between economic well-being and happiness. Students will learn differing assessments and determinants of happiness as presented by economists, psychologists, and neuroscientists. In addition, they will examine the influence of ethics, altruism, and cooperation on wellbeing and will conclude by examining policy implications. Prerequisite: ECO 101J or ECO 102J or instructor permission.

Cr 3.

ECO 335 The Political Economy of Food
This course examines the inter-relatedness of production, distribution, and consumption of food in a global economy. Topics include the role of government policies in the U.S. and India, the impact of multinational agro-corporations on traditional methods of food production, and the subsequent impact on income and entitlements to food. Prerequisites: any 100 -level ECO course and ENG 100 C or instructor permission.

Cr 3.

## ECO 340 History of Economic Thought

A survey of the development of modern economic theories, focusing in particular on Smith, Ricardo and Malthus, Marx, the marginalists, and Keynes. Consideration is also given to contemporary debates which exemplify historical controversies among theories. Prerequisites: ECO 101J, ECO 102J. Cr 3.

## ECO 350 Comparative Economic Systems

The structures and operating principles of the major contemporary economic systems are examined and compared. Prerequisites: ECO 101J or ECO 100 J.

## ECO 370 International Economics

Analysis of international markets and exchange theory, functioning of prices in the international economy, international finance, tariffs, quotas, and other
instruments of international economic policy. Prerequisites: ECO 101J, ECO 102J. Cr 3.

## ECO 380 Public Finance and Fiscal Policy

Public expenditure theory; principles of taxation; the federal budget and alternative budget policies; federal tax policy; fiscal policy for stabilization; federal debt. Prerequisites: ECO 101J, ECO 102J. Cr 3.

ECO 381 State and Local Public Finance
Development of the federal system; fiscal performance; intergovernmental fiscal relations; state and local revenue systems; budgetary practices; state and local debt. Prerequisites: ECO 101J, ECO 102J.Cr 3.

ECO 399 Special Topics in Economics Cr 3.
ECO 450 Readings in Economics
A series of readings and discussions of important books and articles of a socio-economic and politicoeconomic nature. Prerequisites: none.

Cr 3.

## ECO 490 Independent Readings and Research

 in EconomicsIndependent study and research of various studentselected areas of economics. Prerequisites: a completed independent study form and sponsorship by an economics faculty member. May be taken more than once.

Cr 1-12.

## English

Chair of the Department: John Muthyala, 325 Luther Bonney, Portland
Professors: Ashley, Gish, McGrath, Waldrep; Associate Professors: Abrams, Benedict, Bertram, Carroll, Cole, Dean, Kuenz, Marya, Muthyala, Peters, Rusch, Swartz, Walker; Assistant Professor: Tussing

The USM English major is devoted to the study of language, literature, and culture. Focusing upon the British and American literary traditions, the major exposes students to a range of literature in different historical eras. It also offers students the opportunity to explore other traditions such as Irish or Canadian literature, women's writing, and African-American writing. In addition to literatures written in English, course offerings include world literatures in translation from the classical to contemporary eras.

The major encourages both the analysis of literary form and the study of literature in its historical and cultural contexts. Students learn how to read in the light of contemporary critical theories and in relation to the tools, texts, and theories of other academic disciplines. Many classes provide opportunities for the study of non-literary cultural texts and practices such as film, television, fashion, and ritual. Approved courses from other departments and programs-for example, Women's Studies and Modern and Classical Languages and Literatures - may also be counted toward the English major.

The most distinctive skill the major develops is critical expository writing. Virtually every course requires substantial writing from students, ranging from a weekly short paper to longer research papers. Moreover, students have the opportunity to develop their talents in writing through workshops in fiction, poetry, autobiography, and journalism. English majors have traditionally enjoyed participating in the creative communities of Stonecoast Writers' Conference and Celebrate Writers! The Department also offers a minor in writing. An internship in professional writing provides a means for some students to work locally as writers, editors, and reporters, and an internship in the teaching of writing for students who are planning a teaching career is offered.

Because of the Department's desire to explore relationships among language, literature and culture, English majors are encouraged to study a second language. Opportunities for study abroad are offered through the Department's exchange program with several schools, including Radboud University in the Netherlands, University College Winchester (formerly King Alfred's College) and the University of Central Lancashire in England, and University College, Galway, in the Republic of Ireland.

English majors are continually engaged in articulating their ideas and in developing persuasive arguments; therefore, graduates are well-prepared for careers in many areas. Medical, law, and business schools, in particular, regard English majors as desirable applicants. USM graduates also enter professional and graduate schools, including programs in English, writing, and cultural studies.

## Programs and Requirements

## Bachelor of Arts

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 48.

After satisfying the two prerequisites, a course in writing (Core Area "C") and an introduction to the study of literature (120H/W), the English major begins with ENG 245W. The student then selects more advanced English courses (and up to 6 credits in approved courses from other departments) to satisfy the 48-credit major requirement. No more than 15 credits in 200-level courses may count toward the major.

English majors must meet the following English Department requirements. All courses must be passed with a grade of C - or better and six hours with a grade of B or better. Majors should have completed ENG 100C, 101C or 104C, ENG 120H/W, ENG 245 W , and at least one other 200-level English course before concentrating on more advanced work.

Prerequisites
ENG 100C, 101C, 104C or waiver (no credit toward major)
ENG $120 \mathrm{H} / \mathrm{W}$ or waiver (no credit toward major)
I. Introduction for Majors (3 credits)

ENG 245W Introduction to Literary Studies. This course is a prerequisite for 300- and 400-level literature courses.
II. At least one 300- or 400-level Criticism and Theory course (3 credits)
III. At least one 200-, 300-, or 400-level course from each of the following categories ( 12 credits)

Language (In addition to ENG courses in the Language category, the following courses from the Linguistics Department satisfy this requirement: LIN 305, LIN 311, LIN 312, LIN 313, LIN 314, LIN 331. Courses in foreign and classical languages beyond third-semester college level also satisfy this requirement.)

Genre and Form
Writing (ENG 201F does not satisfy this requirement)
Interdisciplinary and Cultural Studies
IV. At least one 300- or 400-level course from 4 of 6 historical periods of literature (12 credits)

Ancient and Biblical (In addition to ENG courses in the Ancient and Biblical category, the following courses from Modern and Classical Languages and Literatures satisfy this requirement: CLA 283H, CLA 284H.)

Medieval
Renaissance
Eighteenth Century
Nineteenth Century
Literatures Since 1900
V. Senior Seminar (3 credits). A seminar is a small class (limited to approximately 15 students) designed to encourage independent thinking, intensive student participation, and in-depth research on topics of the student's choice related to the seminar topic. Typically seminars allow a professor to teach a focused subject of special interest, one on which the professor has done recent research or scholarly writing. Each semester, detailed descriptions of seminars will be published in the English Department's Course Guide. Seminars may also fulfill requirements under categories III, IV and V (but they still count as only 3 credits toward the major requirements).
VI. Electives (as needed to complete 48 credit hours in the major). All electives must be 200-level or above. Students may petition to use up to six hours of courses from other departments toward their electives.

## Prerequisites and Course Waivers

ENG $100 \mathrm{C}, 101 \mathrm{C}, 104 \mathrm{C}$ or an equivalent, or a waiver is prerequisite for any English language or literature course, including ENG 120H/W. ESL 100C satisfies this requirement for non-native speakers of English. ENG 120H/W or permission of the instructor is prerequisite for any other English course. (English majors may not use more than one ENG course to satisfy the Core curriculum requirements.) For English majors, ENG 245 W is prerequisite for all 300 - and 400 -level literature courses. ENG 201 F or instructor permission is a prerequisite for all $300-$ and $400-$ level creative writing courses. Certain advanced courses, as indicated in the course listings, and all independent studies require the permission of the instructor.

Non-majors and students with special interests are encouraged to seek the instructor's permission to take any course for which they feel qualified. ENG 120H/W may be waived for a few exceptional students who pass a qualifying exam administered by the English Department and for transfer students with certain literature course credits.

## Semester Course Guides

Every semester the Department publishes a course guide that gives more detailed information, including texts and writing requirements, than the undergraduate cata$\log$ can accommodate. Students are urged to obtain a copy of the guide in the English Office.

## The Honors Degree in English

For a B.A. degree in English with honors, a student must achieve a B+ or better average in courses taken for the major.

## The English Minor

The minimum number of credits (exclusive of the University's Core curriculum) required for the English minor: 18. No more than a total of 6 credit hours can be earned at the 200-level.

The Department offers a minor in English that requires 18 credits of upper-level courses in a program planned with an English faculty advisor and approved by the English Department director of Advising. The goal of the minor is to give students not simply a collection of courses, but a coherent experience with English courses chosen to suit their needs and interests.

Each English minor program must meet the following specific requirements beyond ENG 100C/101C/104C and ENG 120H/W (or waivers):

## I. ENG 245W (3 credits)

II. Three 300-level literature courses (one must focus on a period before 1800 and one on a period after 1800) (9 credits)
III. Electives to complete the 18 credits required for the minor

Further information about the English minor is available from the English Department.

## The Writing Minor

The minimum number of credits (exclusive of the University's Core curriculum) required for the writing minor: 18.

The English Department offers a minor in writing for both English majors and non-majors. The minor consists of tracks in poetry, fiction, non-fiction, and journalism. The goal of the writing minor is to direct student attention to writing offerings while recommending a productive sequence of writing courses and collateral craftoriented textual studies courses.

Students enter the writing minor by meeting with the Department's coordinator of advising. Candidates must be eligible for pre-registration and/or admission to upper-level workshops and should have completed six hours of 200- or 300-level writing classes. Approximately 45 students will be writing minors during any given year. Students who are writing minors or English majors will have priority for registration in writing classes.

Each writing minor program must meet the following specific requirements beyond ENG 100C/101C/104C and ENG 120H/W or waivers:
I. ENG 201F (3 credits)
II. ENG 245W or one 200-level course from one of the following categories:

Genre and Form or Interdisciplinary and Cultural Studies (3 credits)
III. One of the following courses ( 3 credits)
(Note: These courses are required for admission to writing workshops.)
Fiction Writing (ENG 300F)
Poetry Writing (ENG 301F)
Newswriting (ENG 309)
IV. Workshops (6 hours)

Fiction Workshop (ENG 302F)
Poetry Workshop (ENG 303F)
V. Elective courses (3 hours)

Selected from English Department offerings (or from offerings in other departments, such as Women's Studies) with emphasis on literary texts in the genre those students are practicing. Courses elected should be 300 - or 400 -level.


#### Abstract

VI. Thesis

The minor requires a thesis comparable to an M.F.A. application portfolio: 10 to 15 poems or 25 to 50 pages of fiction or non-fiction, which normally would be completed in the second upper-level workshop. VII. Optional Internship (3 credits)

Internships provide students the opportunity to earn course credit through professional experience in writing or editing for an organization, primarily in journalism or the arts. The English Department currently offers the Internship in Professional Writing (ENG 409).

Further information about the writing minor is available from the English Department.


## ENG 100C College Writing

With an emphasis on the connections between reading and writing, English 100C introduces students to practices and conventions of expository academic writing. Students read expository writing from a variety of fields and use the ideas they encounter to develop and refine their own arguments and perspectives. Students learn how thinking and writing change through processes of reading, drafting, rereading, revision, editing, and proofreading. At the end of the semester, an ENG 100C student is able to compose essays that reflect his or her point of view, engage with complex readings, and focus on a central thesis or project in language relatively free of sentence-level error. Prerequisite: college readiness in writing. Every semester.

Cr 3 .

## ESL 100C College Writing

This section of College Writing (ENG 100C) is intended for non-native speakers of English only. This course focuses on the analysis of professional and student writing in terms of how to use the English language effectively in the academic classroom. The writing assignments encourage students to apply the principles discussed in class to their own work. This course cannot be used to satisfy a Humanities requirement. Prerequisite: ESL 104A or writing proficiency.

Cr 3.

## ENG 101C Independent Writing

English 101C is offered as an alternative college writing course for students who prefer to work independently on academic writing with an instructor's guidance. The main business of the course is conducted in individual conferences; therefore, the course is more intensive than ENG 100C or 104C. This course emphasizes style, sentence structure, organization, and development. The major challenge of the course is the self-discipline that students will need to work independently. Prerequisite: college readiness in writing. This course fulfills the college writing requirement. Every semester. Cr 3 .

## ENG 103 A Modular Approach to the Writing Process

This course for college writers in various disciplines is divided into three units or modules, each of which earns one credit hour. Each unit runs for approximately one-third of a semester. Students may enroll in one, two, or all three modules and receive separate grades for each module they complete. The second and third units do not require the earlier unit(s) as prerequisites. Any or all of the units may be taken in conjunction with ENG 100C College Writing. The first unit, "Practical and Descriptive Grammar for College Writers," gives students a thorough knowledge of traditional "prescriptive" grammar and introduces them to modern "descriptive" grammar. The second unit, "Editing, Revising, and

Rewriting," focuses on skills in proofreading, editing, revising, and rewriting, and also covers the use of computer programs for writing assistance. The third unit, "Research Skills Across the Disciplines," studies the use of library resources (especially online and other computer databases), documentation and bibliography formats from a range of disciplines, and other techniques crucial to writing analytic research papers. Every year. Cr var.

## ENG 104C Enriched College Writing

This version of college writing provides significant opportunities to improve grammar and usage, drafting and revision, and analytical reading through discussion, small-group work, and one-on-one time with instructors. The course is designed for students who have not met the University's measure of college readiness in writing, and for any student interested in extra structure and support for success in the course. At the end of the course, an ENG 104 student will be able to compose essays that reflect his or her point of view, engage with complex readings, and focus on a central thesis or project in language relatively free of sentence-level error. Every semester. Cr. 4

## ENG 120H/W Introduction to Literature

This course will pay sustained attention to texts in order to show how they create meanings and explore the force and significance of those meanings in the world. The course will examine several genres selected from a range of historical periods. Prerequisite: Core Area "C" or permission of instructor. Every semester.

Cr 3.

## ENG 150H/W Topics in Literature

This course will pay sustained attention to texts in order to show how they create meanings and will explore the force and significance of those meanings in the world. Topics vary from semester to semester. Previous topics include American Fiction of the 1930s, Satire in Film and Fiction, The Literature and Cinema of Fantasy and Horror, Magic Realism, God and the 20th Century Writer, and Rites of Passage. Offered every semester, the course may be taken for credit twice if the topics are different. Prerequisite: Core Area "C" or permission of instructor. Every semester.

Cr 3 .

## ENG 245W Introduction to Literary Studies

This is a required course for all English majors. It may be taken concurrently with other 200-level courses in the Department, but is a prerequisite for all 300- and 400-level courses except those in creative writing. The course will have a double focus. Students will be introduced to a variety of methodologies important to an insightful analysis of literature and other cultural texts. They will also learn research procedures and techniques of effective critical writing. Every semester.

Cr 3.

## ENG 230E Literacy Studies

A course dedicated to examining the history, concepts, and practices of literacy, with readings drawn from socio-linguistics, the social and cultural history of literacy and of print culture, the sociology and history of education, and reader response studies. The course will examine changing concepts of literacy, orality, and illiteracy, with special attention given to the following: the historical, social, and cultural dynamics influencing reading and writing practices; the plurality of literacy practices; and the theoretical debates over the meaning of the word "literacy" itself. Students will also do ethnographic studies of their own literacy practices and the ways in which these differ from one social context to another. Every semester.

Cr 3.

## ENG 330 History of the English Language

This course includes a survey of the prehistory of the language as well as a detailed study of Old, Middle, Early Modern, and Modern English and the forces that shaped these stages. Some methods of modern linguistic science are utilized in examining current usage. Change and development of the language are emphasized. Every fall.

## ENG 331 Modern Grammars

Designed to acquaint students with the three most common forms of English grammatical analysis: traditional, structural, and post-generative/transformational. The mechanics of the various analyses will be examined, and comparisons will be made to determine what tentative combination best explains the structure of English. 3-year cycle, spring. Cr 3.

ENG 336 Old English Language and Literature An introduction to the grammar of English in the earliest period, 700-1050. The first several weeks concentrate on grammar and enable students to translate elementary prose (e.g., prefaces by King Alfred, Apollonius, the Anglo-Saxon Chronicle). Later weeks introduce students to Anglo-Saxon culture and literature, particularly to alliterative poetry. Major prose and poetic works are studied through looking jointly at Modern English translations and the original works. Beowulf, "The Wanderer, Elene, and "The Phoenix" are works typically studied. 3year cycle, spring.

Cr 3.

## ENG 337 Studies in Rhetoric

The course will introduce students to the many

## Criticism and Theory Courses

## ENG 340 History of Literary Criticism and Theory

An historical study of the key critics and theorists from Plato and Aristotle to the present day. Every year, fall.

Cr 3.

## ENG 341 Contemporary Critical Theories

An introduction to major schools of literary criticism developed in the twentieth century. Emphasis is placed on identifying points of agreement and
ways of thinking about rhetoric throughout history and stress the value of rhetorical criticism in analyzing texts, discourse, and language. Topics will vary, but may survey theories of rhetoric from Plato and Aristotle to Campbell and Nietzsche or examine contemporary theoretical approaches to rhetoric, ranging from the neo-Aristotelian, dramaturgical, experiential and sociolinguistic to the postmodern. Students should consult the Department's Course Guide for detailed descriptions.

Cr 3.

## ENG 338 Studies in Language

Under this title is offered a variety of topics on language which include the following: linguistic approaches to literary analysis; language and culture; grammatical structure in English and related languages; and the history of linguistic thought. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions. 2-year cycle, spring.

Cr 3.

## ENG 430 Independent Study in Linguistics

By instructor's permission. See Department for application form.

Cr var.

## ENG 431 Seminar on Literacy Studies and the Teaching of Writing

The seminar will consider topics in composition theory and practice within the broad context of histories and theories of literacy. Participants will be asked to make connections between curricular design or pedagogical practices and such issues as the history of public education and English studies, theories of discourse, writing and language use, and definitions of literary language and textuality. There will be consideration of contemporary research debates on the teaching of writing. This seminar is required for students enrolled in the Internship on the Teaching of Writing. It is open to all English majors; others must have instructor permission.

Cr 3.
ENG 432 Internship in the Teaching of Writing
The Internship will provide qualified upper-class English majors with supervised experience in the teaching of writing. There is also the possibility of placement in tutoring and in community literacy programs. Students registering for the internship must also register for the Seminar on Literacy Studies and the Teaching of Writing. Application and screening for the internship take place through the College Writing Committee.

Cr var.
divergence between various theories and methods for interpreting literature. Specific theories to be studied may include (but are not limited to) structuralism, psychoanalytic theory, Marxist criticism, deconstruction, feminist theory, and the new historicism. Every semester.

Cr 3.

## ENG 342 Topics in Contemporary Theory

This course studies in-depth selected theoretical approaches to literature and culture. It will focus
either on a single current theory or, through a comparative method, two to three different theories (e.g., structuralism and formalism, Marxism and cultural criticism, or deconstruction and feminism). May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions. Every semester.

Cr 3 .

## ENG 440 Independent Study in Literary

## Genre and Form

## ENG 262 Poetry

This course studies poetry as a way of knowing and experiencing the world, introduces important concepts in analyzing and appreciating poetry, and offers the opportunity for students to develop skills in interpretation, literary analysis, and discussion, While primary attention will be on poetic forms, figurative languages and the poetic "canon," it will also consider the relationship between historical context and changes in poetic form in various periods. Every fall.

Cr 3.

## ENG 263 Fiction

This course will introduce important concepts in analyzing fiction and enable students to develop skills in interpretation, literary analysis, and discussion. It will focus on narrative forms and rhetorical structures (such as voice, plot, diction, figurative language) in various historical periods, and will both examine and challenge the concept of genre. Every semester.

Cr 3.

## ENG 264 Performance Genres

This course will study dramatic performance from its roots in cultural ritual to its historical development in drama as well as its more contemporary manifestations in television and film. Students will investigate the social functions of performance in several cultures and epochs, focusing on conventions of language and stagecraft, dramatic experimentation, and technical innovation. Every fall.

Cr 3.

## ENG 318 Autobiography

This course will focus on autobiographical forms with emphasis on the emergence and development of the genre. Possible topics include American Autobiography, Medieval Lives, and the Confession. The course may be repeated for credit

Criticism and Theory
By instructor's permission. See Department for application form.

Cr var.

## ENG 441 Seminar in Literary Criticism and Theory <br> Students should consult the Department's Course Guide for detailed descri*ptions. <br> Cr 3 .

when topics vary. Students should consult the Department's Course Guide for detailed descriptions. 3-year cycle, spring.

Cr 3.

## ENG 319 Studies in Genre and Form

The content of this course is flexible, but will focus upon some aspect or dimension of genre studies not treated through other course rubrics. Possible topics include women and the romance, the vampire novel and popular culture, or the novel of sensation. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions.

Cr 3.

## ENG 378 The Novel of Self Development

Originally developed in German literature, the novel of self-development or Bildungsroman depicts an adolescent male who eventually acquires a philosophy of life based on his conscious effort to gain personal culture. This course investigates the changes the idea of Bildung underwent at the hands of various authors in the nineteenth and early twentieth centuries in their adaptation of the original form, including the revision of selfhood to address the Bildung as a female as well as a male province. Works to be considered may include Goethe's Wilhelm Meister's Apprenticeship, Bronte's Jane Eyre, Dickens' David Copperfield, Joyce's Portrait of the Artist as a Young Man. 3-year cycle. Cr 3.

## ENG 418 Independent Study in Genre and Form

By instructor's permission. See Department for application form.

Cr var.

## ENG 419 Seminar in Genre and Form

Students should consult the Department's Course Guide for detailed descriptions.

Cr 3.

## ENG 202F Memoir and Autobiography

This course offers orientation in the technique of narrative autobiographical writing. Using journal writing, observational writing, and free writing techniques, students will learn to access story material from memory and develop a personal writing practice. They will be assigned readings in memoir and autobiography, and will assemble a portfolio of essays and personal writings. Every fall. Cr 3.

## ENG 203 Topics in Writing

A course for prospective writers interested in study-
ing the stories, novels, poems, biographies, memoirs, and letters of established writers, with an eye to learning aspects of craft, technique, and the creative process from a close and focused inspection of key facets of their works and lives. Areas of study will vary from semester to semester, but will include close textual reading and practice in both creative and expository writing. Every spring. Cr 3 .

## ENG 300F Fiction Writing

A course for those who, in a creative writing course or on their own, have written several pieces of fiction and are ready for more advanced work. Emphasis will be on writing well-developed short stories and on understanding the basic elements of fiction. A better-than-average competence in using English is required. Suggested preparation: ENG 201F. Every spring.

Cr 3.

## ENG 301F Poetry Writing

A course for those who, in a creative writing course or on their own, have developed basic skills of reading and revising poetry, and who are interested in developing a sense of how poetry has been written in the past by major poets and how it is being created in the present. Emphasis will be on imitation of past and present writers, exercises that stress the elements of poetry, and the development of personal approaches. Suggested preparation: ENG 201F. Every fall.

Cr 3.

## ENG 302F Fiction Workshop

An advanced course requiring the completion of at least two short stories or a substantial part of a novel. Prerequisites: ENG 300F or instructor's permission. May be repeated for three additional credits with instructor's permission. Every fall. Cr 3.

## ENG 303F Poetry Workshop

A course for advanced students who, after experimenting with different approaches and styles, are developing their own themes and voices as poets. Work toward a completed chapbook-length manuscript or portfolio of poems will be the basis for the course grade. Prerequisite: ENG 301F or instructor's permission. May be repeated for three additional credits with instructor's permission. Every spring.

Cr 3.

## ENG 304 Advanced Memoir

This course offers orientation and practice in the fundamentals of narrative autobiographical writing. We focus on the use of memory-key scenes, remembered characters, and evocative seasons of life-as source material for the writing of personal essays and autobiographical stories. We work with prose narrative material only (prose material that tells a story, as opposed to analytical essays or expository articles),
and the boundaries between fact and invention in this course will necessarily sometimes blur. Readings will be drawn from the works of contemporary writers prominent in the field, from period journals and diaries, and from texts on memoir as a literary genre. May be repeated for three additional credits with instructor's permission. Prerequisite: ENG 202 or permission.

Cr 3.

## ENG 305 Rhetoric, Syntax, and Style

The course focuses on the fundamentals of sen-tence-level writing, teaching students the possibilities of English style both for their own prose and for textual analysis. By examining contemporary texts in the context of traditions of rhetoric, students will develop a theoretical grasp of rhetoric, syntax, and style as a basis for editing and revision.

Cr 3.

## ENG 306 Writing the Novel

This course offers instruction in the preliminary stages of writing a novel, including the uses of synopsis outlines, building well-developed scenes, and experimenting with style, narrative voice, and point of view. Work in class will involve lectures on craft, the critique of student work, and discussions of published texts. Using an expanding synopsis outline, students will produce 50 pages of revised work. Prerequisites: ENG 302F preferred; permission of instructor. May be repeated for three additional credits with instructor's permission. 2-year cycle, fall.

Cr 3.

## ENG 309 Newswriting

This course covers the basics of news-story writing for the print media with intensive practice in news gathering, background research, interviewing, covering a beat, covering social and political issues, and consideration of ethical and legal issues related to American journalism. Every fall.

Cr 3 .

## ENG 400 Independent Study in Creative or Expository Writing

By instructor's permission. See Department for application form.

Cr var.

## ENG 409 Internship in Professional Writing

By application to the department and arrangement with campus or local newspaper or journal. Prerequisite: ENG 309 or 310 , or permission of the Department. Every semester. Cr var.

ENG 410 Independent Study in Journalism
By instructor's permission. See Department for application form. Cr var.

## ENG 411 Seminar in Journalism

Students should consult the Department's Course Guide for detailed descriptions. Cr 3.

## Interdisciplinary and Cultural Studies

ENG 244E Introduction to Cultural Studies
This course introduces students to the history, concepts, and methods of cultural studies. Students will read a variety of critical texts from a number of different theoretical perspectives, including semiotics, Marxian theory, psychoanalytic theory, gender studies, and cultural anthropology, and will also read selected texts from specific areas of cultural analysis, such as television studies or film theory. The course examines specific aspects of past or present popular cultures. Every semester.

Cr 3.

## ENG 310 Topics in Journalism

Under this rubric the English Department will offer a variety of advanced courses which have journalistic writing as a major component of the course work. Topics include American Culture and World Communication, and The Right to Privacy. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions. Prerequisite: ENG 309. Cr 3.

## ENG 344 Sex/Gender and Sexuality

This course will investigate sex/gender and sexuality as analytic categories for understanding culture. Through a consideration of both history and theory, the course will explore different models for understanding sex/gender and sexuality, including their interaction with other categories of difference such as race and class. It will also explore the effect of these models on our understanding of literature, mass culture, theories of identity, and contemporary social life. Every spring.

Cr 3 .

## ENG 345 Racial Formations

Guided by the concept of "racial formations," this course will foreground the definition of "race": it will ask questions about whether race is a biological or discursive category, about the relationship between race and identity, and about how racial identity is informed by class, gender, sexuality, and other socio-historical "formations." Course materials may include literature, film, criticism and theory, scientific and historical readings, and popular culture texts such as television, video, and music. 2year cycle, spring

Cr 3 .

## Historical-Ancient and Biblical

## ENG 315 Ancient Literature

The course will vary between being focused on Greek and Roman literature and on literatures outside the Mediterranean/Aegean ancient world. Every fall.

Cr 3 .

## ENG 316 The Bible

The Bible, arguably the single most influential work (or group of works) in Western culture, will be studied as a literary text, with emphasis on selected books that have had the greatest literary influence,

ENG 346 Language, Literature and the Politics of Identity in Contemporary Ireland
An examination of the relations among literature, language and the politics of identity in Ireland today. Readings will include political, historical, and cultural materials from various communities of discourse competing to shape Irish identity for the twenty-first century, including traditional republicanism and unionism, new nationalism, historical revisionism, feminism, and consumer capitalism. 2year cycle, spring.

Cr 3.

## ENG 347 Topics in Cultural Studies

This course explores specific cultural practices of the past and present. The goal of the course is to introduce students to the different ways in which popular culture has been analyzed and the ways in which different popular cultures have sustained themselves Although topics courses will vary in subject matter, they will all share the common objective of examining the ways in which a given culture makes sense of itself. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions.

Cr 3 .

## ENG 348 Topics in Interdisciplinary Studies

This course investigates literature in relation to other disciplines, with an emphasis on how various fields of knowledge contextualize and elucidate our understanding of literary production. Topics may vary and include, for example, anthropology and drama, Freud and literature, literature and technology, and parallel movements in art and/or music and literature. Because of the diverse range of interdisciplinary studies, material is drawn from film, video, music, and art, as well as from printed texts. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions.

Cr 3

## ENG 444 Independent Study in Interdisciplinary and Cultural Studies

By instructor's permission. See Department for application form.

Cr var.

## ENG 445 Seminar in Interdisciplinary and Cultural Studies

Students should consult the Department's Course Guide for detailed descriptions.

Cr 3.
including Genesis, Exodus, Psalms, Job, and the Gospels. The course may also discuss the history of the texts, problems of translation, and/or influence. Every spring.

Cr 3.

## ENG 317 Studies in Ancient and Biblical <br> Literature and Culture

Some topics studied in this course take a comparative approach to ancient and biblical literatures, including that of the Graeco-Roman civilization, but are not limited to classical texts. Other topics take a
more narrow approach and may involve combined studies of ancient and/or biblical literature and the culture of a later period. Possible topics include The Late Classical Era through Christian Antiquity, The Bible and Early Western Literatures and Cultures, and Women Writers of Antiquity and Images of Women in Ancient Literature. May be repeated for credit when topics vary. Students should consult the

Department's Course Guide for detailed descriptions.

Cr 3.

## ENG 415 Independent Study in Ancient and Biblical Literature and Culture

By instructor's permission. See Department for application form.

Cr var.
tery cycles, produced by civic and guild pride in the fifteenth century. Tudor plays of the early sixteenth century may also be read. Attention will be paid to the aesthetic and theological principles underlying the conjunction of farce and high seriousness in the plays, as well as to distinctly medieval techniques of staging and production. 3-year cycle, spring. Cr 3.

## ENG 353 Medieval Women Writers

The course focuses on women writing in various discursive milieux during the long period between the third and the sixteenth centuries. Writers include literate nuns, female courtly love lyricists, laywomen mystics, the first professional woman writer Christine de Pizan, and women dramatists. NonEnglish texts will be read in modern translation. 3year cycle.

Cr 3 .

## ENG 354 Studies in Medieval Literature and Culture

This course explores literature and culture ranging from the fifth and sixth centuries through the late fifteenth century. Some topics that may recur include Anglo-Latin and Anglo-French literature and scholarship; feminist studies of medieval culture; and allegory, symbol, and sign. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions.

Cr 3.

## ENG 450 Independent Study in Medieval Studies <br> By instructor's permission. See Department for application form. Cr var.

## ENG 451 Seminar in Medieval Studies

Students should consult the Department's Course Guide for detailed descriptions.

Cr 3 .
religion, imperialism, social hierarchy, and notions of selfhood. Every fall.

Cr 3.

## ENG 357 Elizabethan and Jacobean Drama

A study of selected plays from the English Renaissance. The course may focus on a particular theme, genre, sociopolitical issue, or author. Typical topics include theater and the state, unruly women, magic and witchcraft, the construction of the "other," and rebellion. Playwrights typically included are Kyd, Marlowe, Dekker, Webster, Middleton, and Jonson. 2-year cycle, spring.

Cr 3 .

## ENG 360, 361 Shakespeare

ENG 360 and 361 each feature close reading of five to seven Shakespearean plays, and focus attention both on theatrical and philosophical meanings. Both courses include tragedies and comedies; neither is introductory nor prerequisite to the other. ENG 360 often includes a section on Shakespeare's history plays, while ENG 361 includes a section on Shakespeare's "romances." Every semester. Cr 3.

## ENG 362 Studies in Shakespeare

An advanced course in Shakespeare which emphasizes the application of various critical and scholarly approaches to important aspects of the poet and dramatist's work. Typical subjects include allegorical elements in Shakespeare's plays; Shakespeare and the daemonic; Shakespeare and computers; Shakespeare and popular culture; Shakespeare, theater, and the state; Shakespeare's sources; Shakespeare, gender, and sexuality. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions. Cr 3.

## Historical—Eighteenth Century

## ENG 370 Literature of Discovery, Exploration,

 and ColonialismFocusing upon literatures of the Atlantic, this course examines literary, historical, and discursive connections between European, Creole, and indigenous cultures in the early period of European expansion. Topics to be explored include the commercial, religious, and scientific origins of European exploration, "New World" representations, and the social organization of colonialism. Because area of inquiry will be determined by the instructor, this course may also satisfy the Renaissance requirement. Students should consult the Department's Course Guide for specific descriptions. 2-year cycle, fall. Cr 3.

## American Literature

## ENG 367 Literature and Culture of the Early Republic

Focusing upon representative early American texts, this course considers questions of revolution, the transition from colonialism, emergent nationalisms, and constructions of citizenship within the context of the American War for Independence and the ensuing years of the Early Republic. 2-year cycle, spring.

Cr 3.

## ENG 368 Studies in Eighteenth-Century American Literature and Culture

More specialized than ENG 367, this course offers

## British Literature

## ENG 365 Restoration and Eighteenth-Century Literature and Culture

Focusing mostly upon representative or canonical texts, this is a multi-generic course intended to provide an overview of British literature and culture in the "long" eighteenth century, 1660-1800. Readings will be organized around several of the following

## ENG 363 Studies in the Renaissance

Selected topics and writers from the sixteenth and seventeenth centuries. The course may focus on an author, genre, historical moment, socio-historical problem, or discursive practice. Typical topics include popular culture, the "New Science," pastoral and politics, literature of "New World" exploration and colonization, the market, the English Civil War. Courses will typically study the relation of diverse practices of writing or generic conventions to the social and political order of Renaissance England. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions. Cr 3.

ENG 455 Independent Study in the Renaissance By instructor's permission. See Department for application form. Cr var.

## ENG 456 Seminar in the Renaissance

Students should consult the Department's Course Guide for detailed descriptions. Cr 3.

## ENG 379 Earlier Women Writers

This course focuses upon the efforts of women writers in the early modern period to create, negotiate, and contest the terms of a developing literary culture. Depending on content, which varies, ENG 379 may also satisfy the Renaissance or nineteenth-century category requirement. In all cases, instructors will attend to the successes and limitations of gender as a category of analysis. Students should consult the Department's Course Guide for detailed descriptions. 2-year cycle, fall. Cr 3.
the opportunity for intensive focus upon a single genre, author, issue, or historical moment, to be determined by the instructor. Typical topics include science in/and the New World, American nationalisms, the rise of slavery in the colonies, witchcraft and public order, the French Revolution in America, The Great Awakening and women's public life, and colonial autobiography before Franklin. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions.

Cr 3.
cultural and historical issues: political and religious controversies; the role of science and experimentation; the creation of the literary professional; women and the domestic sphere; the growth of the British Empire. Critical and theoretical texts may accompany literary readings. Every fall. Cr 3.

## ENG 366 Studies in the Restoration and Eighteenth Century

More specialized than ENG 365, this course offers the opportunity for intensive focus upon a single genre, author, issue, or historical moment to be determined by the instructor. Typical topics include satire and the politics of "wit," the cult of sensibility, theater and anti-theatricality, the eighteenth-century long poem, and seduction and the scandalous memoir. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions. Cr 3.

## ENG 369 Emergence of the Novel

The course explores the emergence of the novel as
a new literary mode, one both dependent upon and distinguishable from the kinds of prose narrative which are usually described as its origins: journalism, scandalous memoirs, Puritan autobiographies, conduct books, etc. 3-year cycle, fall.

Cr 3.

## ENG 465 Independent Study in the Eighteenth Century

By instructor's permission. See Department for application form.

Cr var.
ENG 466 Seminar in the Eighteenth Century Students should consult the Department's Course Guide for detailed descriptions. Cr 3.
be determined by the instructor, this course may also satisfy the Literatures Since 1900 requirement. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for specific descriptions. Every year.

Cr 3.

## ENG 384 Late Nineteenth-Century American Literature and Culture

This course covers the historical period associated with the rise of realism and naturalism in American literature that is traditionally marked by the end of the Civil War and the beginning of World War I. While the course's focus may vary, it will explore the definitions of realism and naturalism with regard to both historical context and aesthetic agendas. In testing definitions of American realism and naturalism, the course may ask questions about whose reality, whose America, and whose intellectual and cultural traditions have shaped our understanding of the literary movements that arose in response to major changes in American society during the late nineteenth and early twentieth centuries. 2-year cycle, spring.

Cr 3.

## ENG 385 Studies in Nineteenth-Century American Literature and Culture

Specific themes, works, or writers prominent in nineteenth-century American literature and culture. The course may focus on a particular literary tradition, genre, or theme; a literary and cultural movement; a theoretical issue in the development or study of nineteenth-century American literature; or the work of a single author. Possible topics include slavery and abolition in American literature, nine-teenth-century popular culture, the domestic novel, American Renaissance, and Whitman and Dickinson. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions. Cr 3.

## British Literature

## ENG 371 Romantic Writing

A study of major British poets of the Romantic period (1790-1832). Readings will be selected from among the works of William Blake, Helen Maria

Williams, Ann Yearsley, Hannah More, William Wordsworth, S.T. Coleridge, John Clare, John Keats, Byron, and Percy Shelley. 3-year cycle, fall. Cr 3.

## ENG 373 Studies in Romantic Literature

 and CultureThe course will explore themes and issues unique to the Romantic Period, a time of unprecedented change in literature, the arts, and society. Although the content of the course will vary, it will generally include a mixture of literary and cultural forms, including poetry, fiction, nonfictional prose, painting, and drama. Possible themes will include women and Romanticism; Romantic writing and the French Revolution; Romanticism and popular culture; forms of Romantic autobiography; Romantic fiction. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions.

Cr 3.

## ENG 375 Nineteenth-Century British Novel

A study of the canonical novels produced during the nineteenth century, including texts by the Brontes, Dickens, Thackeray, George Eliot, and Hardy. The course will examine narrative forms, narrators and narratees, plots and stories; cultural forms such as the literary pen name; the material production of books, serials, and newspaper stories; the cultural predominance of fiction during the period; the cultural production of subjectivity and readership; and the uses and readings of history in fiction. 2-year cycle, fall.

Cr 3.

## ENG 376 Victorian Literature and Culture

Victorian writing, including poetry, novels, plays, autobiography, and non-fiction by writers such as the Brontes, the Brownings, Carlyle, Dickens, George Eliot, Elizabeth Gaskell, George Gissing,

Thomas Hardy, Hopkins, John Stuart Mill, the Rossettis and the pre-Raphaelites, Ruskin, Pater, Tennyson, Wilde. Readings will be organized around several of the following Victorian intellectual, ideological, and cultural issues: the relation of Victorianism to neo-classicism, Romanticism, and modernism; the situation of women; theories of gender and sexuality; industrialism; materialism; aestheticism; decadence; scientific and religious controversies; the emergence of psychoanalysis. 2year cycle, spring.

Cr 3.

## ENG 377 Studies in Nineteenth-Century British Literature and Culture

Topics will vary from semester to semester. Sample topics include: Fin de Siecle Literature and Culture; Nineteenth Century Intellectual History and Culture (e.g., Wollstonecraft, John Stuart Mill, Darwin, Marx, Nietzsche, Freud); Victorian Poetry and the Visual Arts; 19th-Century Psychology and Culture; Contemporary Film Appropriations of Victorian Fiction. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions. Cr 3.

## ENG 475 Independent Study in the Nineteenth Century

By instructor's permission. See Department for application form. Cr var.

## ENG 476 Seminar in Nineteenth-Century Studies

Students should consult the Department's Course Guide for detailed descriptions. Cr 3 .
historical question or could be devoted to two or three figures. It may include writers from First and Third world countries, immigrant writers, and writers of the African Diaspora. Every year, spring.

Cr 3.
may include both canonical and non-canonical writers. Critical and theoretical texts may accompany literary readings. 2-year cycle, fall.

Cr 3.

## ENG 394 Studies in American Literature and Culture Since 1900

This course will be organized around different literary periods, geographical regions, fields of study, and intellectual and cultural movements. Possible topics include the Harlem Renaissance, literature and the left, literature of new social movements (Black power, feminism, lesbian and gay rights), youth cultures, the Vietnam era, immigrant writers, American Indian writers, southern writers, Caribbean writers in the USA, and Maine writers. Students should consult the Department's Course Guide for detailed descriptions.

Cr 3.

## British Literature Since 1900

## ENG 390 British Poetry Since 1900

This course will focus on poetry written in Britain since 1900 , with emphases on such questions as the development of modernism, poetic forms and strategies, links to political and cultural developments, and new forms and strategies after modernism. The course will usually focus on three or four specific poets read against a broader poetic and historical context. Poets may include T. S. Eliot, Hugh MacDiarmid, D. H. Lawrence, Stevie Smith, Liz Lochhead, Maeve McGuckian, or writers associated with the "New British Poetries." 3-year cycle. Cr 3.

## ENG 392 British Novel Since 1900

This course will focus primarily on novels written with reference to the British literary tradition of the twentieth century, exhibiting the stylistic and thematic concerns associated with literary impressionism, and early and late modernism, by such writers
as Joseph Conrad, Ford Madox Ford, Jean Rhys, Virginia Woolf, James Joyce, Samuel Beckett, Christina Stead, William Trevor, Jessie Kesson, and Lewis Grassic-Gibbon. 3-year cycle.

Cr 3 .

## ENG 398 Studies in British Literature and

 Culture Since 1900This course will focus on the interrelated literatures of Britain's distinctive cultures in England, Scotland, Wales and Northern Ireland. It will be organized around different literary periods, cultures, theoretical and historical emphases and social movements. Possible topics include British modernism, the Scottish Renaissance, race and writing in Britain, writing and nationalism. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions.

Cr 3.
its myth-making from independence to $1960 ; 3$ ) 1960 to the present. 2-year cycle, fall.

## ENG 396 James Joyce

An examination of Joyce's major texts, including Dubliners, A Portrait of the Artist as a Young Man, Ulysses, and selections from Finnegans Wake. Emphasis will be on Ulysses. The course also will include relevant biographical, critical and contextual material. 2-year cycle, fall.

Cr 3.

## ENG 397 Studies in Irish Literature and

 CultureTopics in Irish literature and culture, often set in the context of Irish history and politics. Sample topics include: Irish drama, Irish film; Yeats and Joyce; Joyce and Beckett; Women and Irish Culture. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions.

Cr 3.
tional forms of autobiography, the course investigates the historical vicissitudes in the conceptualization of a "self." 2-year cycle, spring. Cr 3 .

## ENG 326 Studies in International Literature

## Since 1900

Literature since 1900 has become increasingly international especially because of expanded availability of translated texts. This course explores topics in literature that are international in scope whether through specific influences or in response to historical, philosophical, political, and aesthetic developments. Although the range and focus of the course will vary, topics will include studies in Commonwealth and European literatures as well as literatures of specific regions such as Africa, the Caribbean, South America. May be repeated for credit when topics vary. Students should consult the Department's Course Guide for detailed descriptions.

Cr 3.

## ENG 327 Modern Short Story: Themes and Methods

Detailed consideration of from six to ten short story collections reflecting contemporary themes and narrative methods. Although selections will vary, the recent reading list has included Jorge Luis Borges, Franz Kafka, Anton Chekhov, James Joyce, Thomas Mann, Virginia Woolf, Isaac Babel, Grace Paley, Flannery O'Connor, Katherine Anne Porter, and Zora Neale Hurston. A necessarily wide range of themes is confronted: the corruption of reality by dream; personal inadequacy, alienation, and paranoia; self-deceit; varieties of ignorance and cowardice; the moral insight afforded the artist; violence as a mode of self-discovery. Prerequisite: junior class standing or permission of the instructor. 3-year cycle, spring.

ENG 328 Modern Novel: Themes and Methods
Works by six or more distinguished novelists expressing contemporary subject matter and technique. Among representative themes students will consider those of dream and illusion, revolution and personal revolt, alienation and anxiety, crime and self-assertion; among narrative techniques, ellipsis and adaptations of stream-of-consciousness. The list
of novelists will vary, but recent assignments include Knut Hamsun, Franz Kafka, Thomas Mann, Herman Hesse, Andre Malraux, D. H. Lawrence, James Joyce, Christina Stead, Virginia Woolf, Rebecca West, and Djuna Barnes. Prerequisite: junior class standing or permission of the instructor. 2year cycle, fall.

Cr 3 .

## ENG 329 Modern Drama

A survey of modern English and Continental dramatists who have had a revolutionary impact on the modern theater. Authors to be considered might include Buchner, Strindberg, Ibsen, Pirandello, Brecht, Ionesco, Beckett, Pinter, Fornes, Churchill, and Norman. The course will emphasize the experience of drama as much as possible by viewing video productions of several plays. 3-year cycle, spring. Cr 3 .

## ENG 490 Independent Study in Literature Since 1900

By instructor's permission. See Department for application form. Cr var.

## ENG 491 Seminar in Literature Since 1900

Students should consult the Department's Course Guide for detailed descriptions. Cr 3.

## Approved Electives

Up to six credit hours of specific approved courses offered by other departments and programs may be applied toward English major elective credit. Consult the English Department coordinator of advising for the list of approved courses.

## Experimental Courses

Occasionally the English Department offers special courses not listed individually in the catalog. They appear in the current Schedule of Courses under the designation 199, 299, 399, or 499. Such courses will usually be experimental: pursuing original research, testing new alignments of figures or materials, or trying out courses before including them in the Department curriculum.

## Geography-Anthropology

Chair of the Department: Firooza Pavri, 300G Bailey Hall, Gorham
Professors: Edney, Savage, Wood; Associate Professors: Bampton, Hamilton, Pavri, Tizon; Assistant Professor: Ettenger, Professors Emeriti: Crader, Davis, French, Hodges; Adjunct Faculty: Bigelow, Michaud-Stutzman, Valentine

The program leading to a major in geography-anthropology emphasizes the integration of the two disciplines. Among the elements that are integrated in the major are common interests in the relationship between human populations and their natural environment, decision-making strategies of human groups, and the health and nutritional status of human societies. The major is an interdisciplinary program wherein students are expected to take courses from both geography and anthropology. The program of study beyond the basic requirements should be planned carefully, in close consultation with the student's departmental advisor, and should be approved by the latter. Such an arrangement allows for flexibility according to the student's interests while also providing close guidance and a control of educational quality by the Department.

## Programs and Requirements

The Department offers the following programs: bachelor of arts in geographyanthropology; minor in anthropology; minor in archaeology; minor in geography; applied geography minor in planning; a concentration in the social sciences area major of the College of Arts and Sciences; and a certificate in applied GIS.

All students with majors or specific discipline minors in the social sciences must achieve at least six credits with grades of B or better in the requirements of those majors or minors. No grades of D will be counted toward fulfillment of the major or minor requirements. Except for Independent Studies, no required course may be repeated more than one time.

All students are reminded that, in addition to meeting departmental requirements for the major, they must also meet the University's minimum readiness requirements and the Core curriculum requirements.

## Bachelor of Arts in Geography-Anthropology

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 47-53.

All students must take:

| ANT | 101 J | Anthropology: The Cultural View |
| :--- | :--- | :--- |
| ANT | 102 K | Biological Anthropology |
| ANT | 103 | Introduction to Archaeology |
| GEO | 101 J | Human Geography |
| GEO | 102 K | Physical Geography |
| GYA | 202 D | Research Methods |

All students must complete at least three credit hours in a geography or anthropology field course. A supervised three credit minimum internship in geography or anthropology may be substituted for the field course.

All students then elect to concentrate in either anthropology or geography.

| Students who elect to concentrate in anthropology must also take: |  |  |
| :---: | :---: | :---: |
| ANT | 310 | History of Anthropological Thought and either |
| ANT | 305 | History of Archaeological Thought or |
| ANT | 340 | Primate Behavior |
| One ethnography course selected from the following: |  |  |
| ANT | 220I | North American Indians |
| ANT | 222I | Peoples of the North |
| ANT | 2301 | Hunters and Gatherers |
| ANT | 301I | Victims of Progress |
| ANT | 350 | Amazon Peoples and Development |
| One of the following topical or regional courses |  |  |
| ANT | 201J | Human Origins |
| ANT | 202I | Origins of Civilization |
| ANT | 213 | Human Ecology |


| ANT | 232I | The Anthropology of Sex and Gender |
| :--- | :--- | :--- |
| ANT | 233 I | Food and Culture |
| ANT | 250 I | Archaeology of South America |
| ANT | 254 | Archaeology of East Asia |
| ANT | 255 | African Prehistory |
| ANT | 302 | Medical Anthropology |
| ANT | 305 | History of Archaeological Thought* |
| ANT | 340 | Primate Behavior* |
| ANT | 450 | Topics in Anthropology |
| *No course may be used to fulfill more than one category. |  |  |
| One of the following techniques or applied courses: |  |  |
| ANT | 306 | Analysis of Archaeological Materials |
| ANT | 308 | Environmental Archaeology |
| ANT | 315 | Ethnography: Methods, Ethics, and Practice |
| ANT | 320 | Human Osteology |
| ANT | 410 | Zooarchaeology |
| GEO 208 | Cartography I |  |
| GEO | 305 | Remote Sensing |
| GEO | 308 | GIS I |
| 9 additional credit hours, 3 of which must be ANT courses at or above the 300 |  |  |

Students who elect to concentrate in geography must also take:
GEO 103J Human-Environmental Geography
GEO 310 History of Geographical Thought
Two of the following topical or regional courses:
GEO 104J World Regional Geography
GEO 120J Geography of Maine
GEO 203J Urban and Regional Development
GEO 207J Maps: Knowledge, Technology, Society, Culture
GEO 212 Regional Geography of Western Europe
GEO 301 Political Geography
GEO 302 Gender, Work, and Space
GEO 303 Economic Geography
GEO 304 Social Transformation of Nature
GEO 307 History of Anglo-American Cartography
GEO 320 Conservation of Natural Resources
GEO 350 Geography of International Development
GEO 402 Urban Geography
GEO 403 Urban Physical Geography
GEO 450 Topics in Geography
One of the following techniques or applied courses:
GEO 208 Cartography I
GEO 209 Introduction to Land Use Planning
GEO 210 Planning Maine Communities
GEO 305 Remote Sensing
GEO 308 GIS I
GEO 408 GIS II
ANT 315 Ethnography: Methods, Ethics, and Practice
9 additional credit hours, 6 of which must be in GEO courses at or above the 300 level, and 3 of which may be ANT or GEO.

Additionally, all geography-anthropology majors are required to demonstrate writing competence by completing two research papers in the major with grades of C or better, from two different professors, circulated and reviewed by the Department at least one semester prior to graduation.

The maximum number of hours of internships, field experience, and/or independent studies that can be applied toward the major is 9 hours. All students must meet with their advisors before registering for courses each semester.

Minors
Minors offered by the Department of Geography-Anthropology are intended for those students with a major other than geography-anthropology who wish to broaden their educational experience in a formally designated program of study.

## Minor in Anthropology

The minor in anthropology shall consist of the following 19 credits:
ANT 101J Anthropology: The Cultural View (3 credits)

ANT 102K Biological Anthropology and Lab (4 credits)
ANT 103 Introduction to Archaeology (3 credits)
ANT 310 History of Anthropological Thought (3 credits)
and any two courses ( 6 credits total) from two different subfields of anthropology (cultural, archaeology, biological)

Minor in Archaeology
The minor in archaeology consists of a minimum of 18 credits:
Required:
ANT 103 Introduction to Archaeology (3 credits)
ANT 104 Introduction to Historical Archaeology (3 credits)
ANT 305 History of Archaeological Thought (3 credits)
ANT 306 Analysis of Archaeological Materials (3-6 credits)
Electives:
One of the following:
ANT 202I Origins of Civilization (3 credits)
ANT 250I Archaeology of South America (3 credits)
ANT 254 Archaeology of East Asia
ANT 255 African Prehistory One of the following:
ANT 307 Specialized Techniques in Archaeology
ANT 308 Environmental Archaeology
ANT 360 Public Archaeology
ANT 410 Zooarchaeology
GYA 300 Archaeology Field School
Or any combination of three elective courses.
Minor in Geography
The minor in geography shall consist of the following 19 credits:

| GEO | 101 J | Human Geography (3 credits) |  |
| :---: | :---: | :---: | :---: |
| GEO | 102K | Physical Geography and Lab | (4 credits) |
| GEO | 120J | Geography of Maine (3 credits) |  |
| GEO | 208 | Cartography I (3 credits) or |  |
| GEO | 305 | Remote Sensing (3 credits) |  |

## Applied Geography Minor in Planning

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 18.

Required courses: GEO 101J, GEO 208
Choice of one from: GYA 350-351, GYA 400
Choice of one from: GEO 305, GEO 308
Choice of one from: GEO 209, GEO 210
Choice of one from: GEO 303J, GEO 402, GEO 403

## Certificate in Applied GIS

This certificate consists of $15-17$ credit hours. The certificate is designed to provide students and members of the professional community with Geographic Information Systems skills. At all levels of the program, training focuses on the application of GIS skills in the workplace and in research environments. The certificate is open to undergraduates and graduates interested in developing GIS applications in their fields, those already holding degrees who are interested in developing GIS skills to apply to their own areas of expertise, professionals interested in adding GIS to their lexicon of skills, or retooling for a career change.

All courses will be taught at USM. Some courses may be transferred from other UMaine System campuses, as appropriate. In cases where students have already completed the listed course and with prior approval, alternate courses may be substituted for both requirements and electives to make up the full count of 15 credits.

Students must complete all courses with a C- or better. Geography-anthropology majors may use only one course in the certificate toward their major requirements.

Required courses: GEO 308/GEO 608/CPD 620 and GEO 408/GEO 618/CPD 621 and GEO 458/GEO 658.

Electives (take at least two of the following for a minimum of 15 credit hours): COS 141, COS 160 ( 3 cr .) and COS 170 ( 1 cr ), GEO 305/GEO 605, ITT 282, ITT 384, GEO 340/GEY 340, CPD 625, GEO 448.

## Archaeology Laboratory

The Archaeology Laboratory located in 317 Bailey Hall provides facilities for research in archaeology and related areas. Various research collections are available, primarily from Maine, Alaska, and the Caribbean. The Archaeology Laboratory also houses a small library including books, journals, slides, and maps. Opportunities are available for independent student research projects, and work-study positions are available in the laboratory each semester.

## Zooarchaeology Laboratory

The Zooarchaeology Laboratory located in 316 Bailey Hall provides facilities for research and teaching in zooarchaeology, human osteology, and human evolution. Current collections include casts of nonhuman primates and fossil hominids, and a comparative faunal collection specializing in mammals, birds, and fish of the Northeast.

## Qualitative Research Laboratory

The Qualitative Research Laboratory is housed in 315 Bailey Hall and is dedicated to qualitative analysis, training, and instruction, including the use of digital media. The room is used for classes and laboratories, and to conduct research and media production in the qualitative aspects of cultural anthropology and human geography. Opportunites are available for independent research projects, and work-study positions are available in the laboratory.

## Cartography Laboratory and Map Collections

The Cartography Laboratory located in 323 Bailey Hall provides facilities for map making and air photo interpretation. The room is open for faculty and student use daily. An extensive map collection is housed in 318 Bailey Hall. Holdings include national Defense Department maps, Maine maps, topographic maps, and various world regional maps. Student proctors are available to offer assistance.

## GIS Laboratory

The Geographic Information Systems (GIS) Laboratory, located in 302 Bailey Hall, provides facilities for computerized automated research of geographical data. The GIS Laboratory includes tools for running vector-based geographic information systems, and has the capacity for hand-digitizing images and producing multi-color output.

## Geography-Anthropology <br> GYA 202D Research Methods

Students will focus on the ways in which geographers and anthropologists conduct research. We will address the issues of research question formulation, methodological strategies, and analytic techniques. Topics include defining research problems, measurement, sampling, research design, and analysis. Examples, case studies, and data will be drawn from the disciplines of geography and anthropology. Prerequisites: one of the following: ANT 101J, ANT 102 K , ANT 103, and one of the following: GEO 101 J, GEO 102 K , as well as completion of mathematics readiness.

Cr 3.

## GYA 215 Culture and Place

This course provides an introduction to the ways in which basic principles of ethnography, ethnohistory, and material culture studies can be used to understand the cultural landscape. Normally offered during either the Winter Session or the Summer Session, the course will usually be conducted in a setting outside Maine. The emphasis will be on collaborative research skills, understanding of other cultures, and appreciation of the interrelationship of anthropology and geography.

Cr. 4-6.

## GYA 300 Archaeology Field School

The summer field school is designed to combine training in research methods of archaeology and geography. Students will receive intensive training in methods of site survey excavation and materials analysis. Several weeks will be spent at selected areas of coastal Maine involved in survey and excavation of sites, mapping sites and landscape features, and investigating potential food resources in site areas. This will be followed by some laboratory analysis of recovered materials. This course may be repeated twice with the permission of the instructor. $\mathrm{Cr} 4-6$.

## GEO/GEY 360 Field Mapping in the Island Environment: Data Collection to GIS

The coast of Maine provides a unique laboratory for teaching environmental mapping, data compilation, and data management. In this course students are trained and equipped to use kayaks as the platform
from which to conduct survey work for the preparation of small-scale high-resolution analytical maps of natural, historical, and archaeological phenomena. Field techniques used include topographic surveying, global positioning system (GPS) operation, and field mapping of geological and geographical features. Minimum impact methods are used throughout. Laboratory techniques used include air-photo interpretation, traditional cartography, and geographic information system (GIS) operation. The course culminates in the completion of a portfolio of maps and a GIS database covering the area surveyed. This course may be repeated once for credit. Offered Summer Session only. Prerequisite: permission of instructor. Cr 6.

## GYA 350-351 Internship in Applied GeographyAnthropology

Internships offer the student practical experience in working with public agencies, private firms, and municipalities engaged in applied geographicalanthropological activities including, but not limited to, planning, transportation, delivery of human services, and natural resources.
A written contract will be drawn up by advisor and student for each internship, specifying the number of credits sought and work required for these credits. As a general rule, internships will require at least eight hours of actual work per week. Interns will be expected to meet at least once every two weeks with instructor to discuss experiences and/or problems. In addition, a major paper will be required from each student intern discussing an aspect of the internship or the work performed during the internship. Prerequisite: junior or senior standing in geog-raphy-anthropology. Offered pass/fail only. Cr 1-6.

## GYA 400 Independent Study in Anthropology or Geography

The Department faculty offers independent study in a topic in anthropology or geography for upperlevel students (junior and senior status). Students must have had at least one course from the faculty member supervising the independent study; the proposal is subject to departmental approval. Variable credits will be offered.

## Anthropology

## ANT 101J Anthropology: The Cultural View

This course is a basic introductory survey of cultural anthropology. It examines the differences between cultures as well as cultural universals, and the relationship between social organization, ideology, economics, and political structure in different types of societies. It reviews the various theoretical approaches in cultural anthropology's attempt to explain human behavior, presenting examples from foraging, farming, and contemporary industrial societies through readings and films. Cr 3.

## ANT 102K Biological Anthropology

This course examines our place in nature; the relationship between human biology and culture; the
relevance of primate behavior and human evolution to understanding contemporary human society; human biological adaptations, including a discussion of population and nutrition; and contemporary human variation with an evaluation of the concept of race. The course includes a required 2-hour lab each week that provides practical experience with materials and research methods used by biological anthropologists.

Cr 4.

## ANT 103 Introduction to Archaeology

This course describes the methods and theories used by modern archaeologists to uncover information about past human life ways. Attention is given to techniques of survey and excavation of archaeolog-
ical materials; concepts of space and time in archaeology; and detailed analysis of artifacts and organic residues. Some attention will be given to specific topics such as the archaeology of Maine. Cr 3.

## ANT 104 Introduction to Historical Archaeology

An examination of the development and role of historical archaeology in interpreting the past, with regional emphasis on the United States. Several topics in historical archaeology will be examined, including New England historical archaeology, material culture analysis, subsistence and food way patterns, African American archaeology, and global perspectives.

Cr 3.

## ANT 201J Human Origins

This course focuses on the fossil and cultural evidence for human evolution. Topics to be covered include evolutionary theory, primate behavior, hominid origins, the taxonomy and phylogenetic relationships of fossil hominids, Pleistocene cultural adaptations, and the origin of modern Homo sapiens. The relationship between biology, geography, and culture is explored using the skeletal and archaeological evidence for human evolution. Cr 3.

## ANT 202I Origins of Civilization

This course traces the evolution of human culture from the origins of farming and domestication, to the development of complex societies. General processes of urbanization and social stratification will be investigated, and examples will be drawn from throughout the Old and New Worlds, including the classical civilizations of the Near East, Southeast Asia, Mexico, and Peru.

Cr 3.

## ANT 213 Human Ecology

This course examines interactions between human societies and their natural environments. Human adaptation is viewed as a problem-solving process, involving the development of strategies for maximizing energy efficiency and reproductive success, for warding off environmental stress, and for reducing conflicts. These management strategies are examined for a number of human societies, and are used to gain insight into modern decision-making processes. Prerequisite: ANT 101J or 102 K . Cr 3 .

## ANT 220I North American Indians

This course combines an ethnographic and archaeological perspective on the culture history and traditional cultures of native North Americans. Emphasis is placed on the relationship of aboriginal native cultures to their environments, and the evolution of complex societies in certain regions of North America. Also included is discussion of the fragmentation of Indian societies that followed the European invasion of North America. Cr 3.

## ANT 222I Peoples of the North

This course is designed as a comprehensive summary of the prehistory, traditional culture, and contem-
porary life ways of peoples living in the northern hemispheres of both the Old and New Worlds-from Maine to Alaska, and from Siberia to Lapland. Special attention will be given to the origins of these peoples; the problems of living in cold, northern environments; the effects of European contact; and the modern problems that they face ranging from the effects of urbanization to land claim disputes. Prerequisite: ANT 101J or 103 or permission of instructor.

Cr 3.

## ANT 230I Hunters and Gatherers

Hunting and gathering is a way of life, not simply a subsistence technique. Ninety-nine percent of human evolutionary history involved this kind of life, and our biology as a species was created through this mode of existence. In this ethnographically oriented course we will study several huntergatherer societies including the Ju'/hoansi, the Mbuti, the Australian aborigines, and the Inuit. Special attention will be given to understanding the traditional life and world view of hunter-gatherers, but we will also focus on how recent political and economic events are changing their lives. Cr 3.

## ANT 232I The Anthropology of Sex and

 GenderSex and gender are, respectively, biological realities and cultural constructs. This course will examine the anthropology of sex and gender in an evolution-ary-biological and cross-cultural perspective. The course is organized to explore the issues of sex and gender in three of the major subfields of anthropology: archaeology and biological and cultural anthropology. Topics will include bias in science, the biology and evolution of sex differences, sex-linked behaviors, nonhuman primates, human evolution and the division of labor, and sex roles in different kinds of human societies.

Cr 3.

## ANT 233I Food and Culture

This course focuses on food as an essential and central part of human experience. We will examine the anthropology of food and food habits, including an evolutionary-ecological perspective, the reconstruction of past human diets from archaeological evidence, and a cross-cultural examination of the diversity of human food preferences and avoidances. An important goal of the course will be to try to understand and appreciate cultural differences in food habits from both an ecological and a societal point of view.

Cr 3 .

## ANT 250I Archaeology of South America

This course is designed as a comprehensive summary of prehistoric cultures and paleo-environmental conditions of South America. Emphasis is placed on the evolution of complex societies in the Andean and Pacific coast regions. Also included is a discussion of European contact and interaction with the Inka State.

Cr 3.

## ANT 254 Archaeology of East Asia

This course will examine prehistoric cultural devel-
opments in China, Korea, and Japan. Several issues will be examined in depth, including the theoretical framework of regional research, the PleistoceneHolocene transition, the development and spread of wet-rice farming, the development of regional states, and the role of writing and historic documents. Students will gain insight into the social and economic transformations of selected cultures. Cr 3 .

## ANT 255 African Prehistory

This course examines the archaeological evidence for cultural developments in the African continent, from the earliest traces of hominid behavior through the Iron Age and precolonial states. Emphasis will be placed on the development of stone tool technology, pottery and metallurgy, the ecological setting of sites, the reconstruction of subsistence activities, and African geography and regional settlement patterns, through time. Prerequisite: ANT 103 or permission of instructor.

Cr 3.

## ANT 300 Action Anthropology

Students will engage in the pursuit of both knowledge and social action. Much of the information base for the social action project will come from concurrent enrollment in ANT 350 or ANT 301I, both of which address the environmental/cultural issues of indigenous peoples. The link between knowledge and informed action will be explicit: students will research a particular aspect of an environmental/cultural issue of indigenous peoples, and design a social action project to address it. This course will be particularly useful for students interested in a career in social or environmental service in a multi-ethnic setting. Credit will vary with the scope of the projects undertaken in a particular semester, as determined by the instructor. Prerequisite: concurrent registration with ANT 350 or ANT 301I.

Cr 1-2.

## ANT 301I Victims of Progress: Indigenous Peoples in the Modern World

This course examines the disappearance of indigenous societies as a result of the expansion of industrial society, and the implications of such a process for the future of humanity, from both a scientific and humanistic point of view. It also discusses the role of anthropology in explaining and promoting culture change, and reviews the various philosophies of development exhibited in modern society. Prerequisite: ANT 101J. Cr 3.

## ANT 302 Medical Anthropology

This course considers the interface between medicine and anthropology in terms of both human biology and society. The course develops concepts of health as effective adaptation to environmental stresses, including infectious disease, nutritional stress, and psychosomatic illness, among others. It traces the history of health and disease in human society from hunter-gatherers to modern urban, industrial communities, and examines the way in which human populations have attempted to deal with various agents of disease. The course examines
the diversity of human theories of disease causation and explores the role of modern medicine in effective health care delivery to persons of different cultural and ethnic backgrounds. Prerequisite: ANT $101 \mathrm{~J}, 102 \mathrm{~K}$ or permission of instructor.

Cr 3.

## ANT 305 History of Archaeological Thought

This course is an historical survey of theory in archaeology from the early Classical archaeology and antiquarianism to contemporary processual, post-processual, and contextual approaches. It will examine the social history of archaeology in the United States. A special focus may include Scandinavian, Russian, Australian, or Japanese prehistory. Prerequisite: ANT $103 . \quad \mathrm{Cr} 3$.

## ANT 306 Analysis of Archaeological Materials

This course provides an opportunity for in-depth study of methods used in the analysis of archaeological materials after they are recovered from excavations. Students will work in teams to apply analytical techniques to archaeological site collections including ceramics; stone, bone, and shell artifacts; and archaeological soils and faunal remains. Credit will vary with the range of techniques covered in a particular semester. Prerequisite: ANT 103. Cr 3-6.

## ANT 307 Specialized Techniques in

## Archaeology

This course provides experience in the application of specific techniques from allied science disciplines to research problems in archaeology. Specific topics and course title may vary. May be repeated for credit under different titles. Prerequisite: GYA 300 or ANT 306 or permission of the instructor. Cr 1-2.

## ANT 308 Environmental Archaeology

Students will be introduced to the analytical techniques that are commonly used in the archaeological study of past environments and environmental change. Topics to be covered include archaeological soils, preservation conditions, the reconstruction of past climates and landforms, and the analysis of plant and animal communities from archaeological evidence. In semesters when this course carries more than three credits, requirements will include a substantial research project. Prerequisite: junior status, and ANT 103 or GYA 300.

Cr 3-6.

## ANT 310 History of Anthropological Thought

This course is a historical survey of theory in anthropology from the early classical evolutionists to contemporary materialist and idealist approaches. It will examine the various theories in terms of their level of analysis, explanatory value, and relationship to the western society from which they emerged. This course is a requirement for those concentrating in anthropology. Prerequisites: ANT 101 and either ANT 102K or ANT 103.

Cr 3.

## ANT 315 Ethnography: Methods, Ethics, and

 PracticeThis course offers students an overview of the meth-
ods of ethnographic observation and analysis, and of the ethical considerations of conducting such research. Students will be required to carry out ethnographic fieldwork, employing appropriate methods of data collection and analysis. Credit will vary depending on the scope of the fieldwork project, as determined by the instructor. Prerequisites: ANT 101 J and one ethnography course or ANT 310.Cr 36.

## ANT 320 Human Osteology

This course provides an introduction to the study and analysis of human skeletal material found at archaeological sites. We will focus on learning detailed human skeletal anatomy and the various metric and non-metric techniques used in aging, sexing, stature determination, and analysis of pathologies and injuries. Consideration will be given to how these techniques are applied in demographic and other analysis of prehistoric human populations. Prerequisite: ANT 102K or permission of instructor.

Cr 3.

## ANT 340 Primate Behavior

This is an intermediate course in primatology and theories of social behavior. Although the focus will be ethological, we will also consider primate biology, ecology, and biogeography. Aspects of primate behavior that will be considered include social organization, aggression, dominance, the mother-infant bond, play, sex roles, and intergroup relationships. We will also examine attempts to teach language to non-human primates and will consider the use of primates in models of human evolution. Prerequisite: ANT 102 K or permission of instructor.

Cr 3.

## ANT 350 Amazon Peoples and Development

In recent years the alarm has been sounded about the rapid destruction of the Amazon rain forest and the unknown consequences of the loss of perhaps one-third of the world's species; less attention has been paid to the extinction of systems of knowledge and survival developed over the millenia by the indigenous forest people, not the least of which is how to live sustainably in the complex ecosystem in a rich diversity of cultures. In this course, students will examine these cultures for what they can teach us, as well as the effects of colonization and "devel-

## Geography

## GEO 101J Human Geography

This course examines social, economic, and political processes that shape the contemporary global landscape, with particular emphasis on the relationships between developed and developing regions of the world. Cartography, population trends, agricultural systems, migration, urbanization, and industrialization are among the topics covered. Cr 3.

## GEO 102K Physical Geography

This course examines the physical processes of the environment as they relate to human endeavors. Climate, soil, vegetation, land form, water, and mineral resources are among the topics covered.
opment" on the forest and its inhabitants. Prerequisite: ANT 101J.

Cr 3.
ANT 355 Public Interpretation in Anthropology
Interpretation of anthropological information for the public using video, audio, photos, and other digital media. Students will work individually or in teams to create products for museums, schools, online, or in other public venues. Prerequisite: permission of instructor.

Cr 3.

## ANT 360 Public Archaeology

This course introduces students to the interpretation of archaeological information for the public benefit. Topics to be covered include museum exhibits, collection management, federal and state legislation, ethics, site conservation database management, and GIS. Students will work in teams to produce a finished product for presentation during Archaeology Awareness Week. The course includes prehistoric excavation and a trip to two museums. Credit varies with specific substantial topics and project breadth. Prerequisite: ANT 103.

Cr 2-6.

## ANT 410 Zooarchaeology

Zooarchaeology, the study of animal remains from archaeological sites, provides information for archaeologists about human diet and subsistence practices through time. The course will offer the basic theoretical and methodological foundations of zooarchaeological analysis, focusing on the study of mammalian bones recovered from archaeological sites. The approach will be lab-oriented, with emphasis on learning techniques of analysis and on interpreting archaeological faunal assemblages. Credit will vary with the scope of the projects undertaken in a particular semester. Prerequisite: ANT 102 K, ANT 103, or a course in archaeology. Cr 3-6.

## ANT 450 Topics in Anthropology

This course is designed to undertake detailed, indepth analysis of important topics and issues in such subfields of anthropology as sociocultural anthropology, biological anthropology and archaeology. Topics vary from semester to semester. Research papers are required. Prerequisite: junior standing or permission of instructor.

Cr 3 .

Laboratory exercises acquaint the student with the materials and methods of physical geography. Climate data, topographic maps and field observations are employed to solve practical problems of human interaction with the environment. Cr 4.

## GEO 103J Human-Environmental Geography

Using geographic perspectives, this course focuses on the changing nature of the earth's environment and the human role in these changes. Both direct and indirect human impacts on the biosphere, the atmosphere, and the hydrosphere are considered, including tropical deforestation and the loss of biodiversity, the human role in global climate change, and the impact
of human actions on world fisheries. Local and regional examples will be incorporated. Cr 3.

## GEO 104J World Regional Geography

This course will familiarize students with the diversity of people and places in the world by examining the physical, political, and cultural geography of different regions of the world. Emphasis will be given to development of regions within a global framework. This course will add to the general education of students by developing their geographic skills and by enhancing their geographic awareness and knowledge of the world through various aspects of global diversity.

Cr 3.

## GEO 108 Introduction to ArcGIS

An introduction to the ArcGIS software, stressing basic operation of this popular GIS package. Topics covered include system navigation, data display, data download, and printing public domain and user-created geographical data sets.

Cr 3.

## GEO 120J Geography of Maine

This course will examine Maine as a geographic region. Physical and cultural attributes of the state will be analyzed. Political, economic and demographic factors will be emphasized in viewing the assets and problems of the Maine environment and in planning Maine's future.

Cr 3.

## GEO 203J Urban and Regional Development

Students will survey contemporary patterns of urban and regional development through comparative analysis. Students will examine links between urbanization, employment, and social welfare in different political and economic contexts as the course moves from the global scale to the local. Students will be introduced to a series of research skills including the use of computer databases and spreadsheet programs, many of which will be of use in other courses.

Cr 3.

## GEO 207J Maps: Knowledge, Technology, Society, Culture

This course introduces the interdisciplinary nature of maps and geographic knowledge. Its core theme is the manner in which our complex knowledges of the world are constructed cartographically through technologies, social institutions and cultural expectations. Using examples from prehistoric rock-carvings to modern computer graphics, maps are interpreted as products of human ingenuity, rather than statements of geographic fact; they do not just show the world, they show our conception of what the world ought to be.

Cr 3.

## GEO 208 Cartography I

This is an introductory course in cartography focused on developing basic mapping and graphic communication skills essential to a wide variety of disciplines. The course will be flexible and adjusted to individual needs. Familiarization with basic charting technology and cartographic tools will be included.

Cr 3.

## GEO 209 Introduction to Land Use Planning

This course offers an overview of human/land relationships as they influence contemporary patterns of settlement and use of the land. It will discuss the logic of a planning process as a method of decision making; the formulation of goals and evaluation of alternative courses of action; standards and requirements for specific planning objectives (such as land use, energy, recreation, transportation); and the place of the planning function in government and the role of citizens and private groups. Introduction to basic planning tools and techniques including PERT, aerial photography, and methods of land inventory and classification will be presented. Cr 3 .

## GEO 210 Planning Maine Communities: Current Issues and Directions

This course will examine the issues facing Maine communities such as providing affordable housing, maintaining and improving the community's physical facilities such as streets, sewers, playgrounds, etc., disposing of solid and hazardous wastes, stimulating jobs and economic development, providing adequate transportation facilities, and preserving Maine's environment and lifestyle in the face of growth. It will also address how these issues can be addressed through the use of the planning process and sound planning techniques.

Cr 3.

## GEO 302 Gender, Work, and Space

Students will examine the ways in which the workforce is divided by gender, race, class, and ethnicity and how location and space shape and sustain such divisions. Competing explanations for why women and minorities hold jobs that differ distinctly from jobs held by other workers will be examined. Students will learn how a geographic understanding of gender, race, ethnicity, and class can help explain more fully the current position of women in the economy.

Cr 3.

## GEO 303 Economic Geography

This course examines the intersection between economies and geography. Emphasis is placed on the social, cultural, and political contexts within which economies develop and are regulated and restructured. Students are introduced to the skills which allow them to interpret and understand the present economic landscapes and to evaluate the factors and trends that anticipate the future. Prerequisites: one of the following: ANT 101J, GEO 101J, GEO 203J, ECO 101J, ECO 102J, or permission of instructor.

Cr 3.

## GEO 304 Holocene Environments

Holocene ( 10,000 B.P.-present) environmental processes are unique in two respects: They fall within the scope of human historical record, and they are influenced by human actions. During the lecture portion of the course, patterns and processes of human interaction with Holocene environments are explored. During the seminar portion of the course, historical and scientific data are used to develop case
studies of some of these environments. Prerequisite: one of the following: GEO 102K, ANT 102K, GEO 101J, GEY 111K, or BIO 331.

Cr 3.

## GEO 305 Remote Sensing

Theory and techniques of image processing and analysis for remotely sensed digital data acquired from airplane and satellite platforms. Topics include image enhancement and classifications, spectral analysis, and landscape change detection techniques. Practical applications of natural and built landscapes are considered using remotely sensed datasets and techniques. Prerequisite: GEO 108 or equivalent or permission of instructor.

Cr 3.

## GEO 307 History of Anglo-American Cartography

A comparative history of the creation, dissemination, and control of spatial knowledge in Britain and North America, from 1500 to 1917. This course examines which social institutions have promoted the creation and use of maps, what cultural expectations have defined the character of geographic knowledge, and how those social institutions and cultural expectations have been shaped by the practices of map making. Particular attention will be paid to the territorial aspects of the modern state, to the economic foundations of map making, and to the cultural ideologies of geographic knowledge. Prerequisite: any 200/300-level GEO or HTY course, or instructor's permission.

Cr 3.

## GEO 308 GIS Applications I

Students are introduced to vector-based geographical information systems (GIS). Topics include overviews of geospatial technologies, spatial analysis, GIS data, system operation, the interpretation of results, and professional practices. The course comprises a weekly lecture and laboratory. Students are evaluated with tests, laboratory assignments, and on the basis of a substantial project. Prerequisite: one of the following: ESP/GEO 108, GEO 208, GEO 305, GEY 202, GEY 204, GEO/GEY 340, or permission of instructor.

Cr 4 .

## GEO 310 History of Geographical Thought

An historical survey of the theory and discipline of geography from its classical origins to the modern proliferation of idealist and positivist approaches. Most of the course will cover the development of the modern, secular discipline in the nineteenth and twentieth centuries. Of central concern are the relationships between imperialism (including racism), the study of other peoples by the West, and the configuration of geographical thought and institutions. Prerequisite: GEO 101J or GEO 102K, or instructor's permission.

Cr 3.

## GEO 320 Conservation of Natural Resources

This course examines the geographical approaches to natural resource use and management. It will offer the study of the geographic distribution and physical attributes of natural resources, their role in economic
development, and the socio-political factors governing decision making about their use. Management strategies for forests, soils, wetlands, and energy resources are assessed. Recommended prerequisites: GEO 101J, GEO 102K, or GEO 103J.

Cr 3.

## GEO 340/GEY 340 Digital Mapping

Students are exposed to the latest digital survey gear and integrated tecchniques with applications in geoscience, geography, and environmental science. Instrumentation includes both static and real-time kinematic GPS (global positioning system) and autolock servo-driven electronic total station. Detailed precision survey data are combined with geo-referenced maps and imagery in GIS software. Prerequisites: introductory course in GEY, GEO, or ESP, and additional 200-level course in any of the above areas.

Cr 4.5.

## GEO 350 Geography of International Development

A critical examination of theories and approaches to the study of development. Historical and contemporary perspectives will help examine the role of states, international institutions, and civil society in the development process. Examples from selected countries and regions across the world demonstrate issues facing developing countries. Recommended prerequisites: GEO 101J, GEO 103J, GEO 104J, or ANT 101J.

Cr 3.

## GEO 402 Urban Geography

This course examines the underlying social, economic, cultural, and political processes that have created and continue to shape the North American urban landscape. The course will combine readings, lectures, discussion, and fieldwork to explore various themes in urban geography. Topics may include industrialization, immigration, residential segregation, housing, economic development, sustainable growth, urban ecology, and planning policy. Prerequisite: GEO 101J, GEO 203J, or permission of instructor.

Cr 3-6.

## GEO 403 Urban Physical Geography

Past and present urban environments are characterized by intense human impacts on environmental processes, both planned and unplanned. Using a combination of field and laboratory techniques, students will develop an analytical model exploring one or more aspects of this interaction between people and urban environments. Prerequisite: one of the following: GEO 102 K , GEO 402, GEY 202, or BIO 331.

Cr 3.

## GEO 408 GIS Applications II

Students explore the use of geographical information systems (GIS) in research and professional environments. Building upon knowledge and skills developed in GEO 308, students design and execute a substantial project. Project design focuses on generating hypotheses, planning time lines and individual work assignments, and identifying technical and data resources. Projected execution is undertaken using a
variety of raster, vector, and graphical user interface (GUI) software, as appropriate. Prerequisite: GEO 308 or permission of instructor. Cr 4.

## GEO 448 GIS Internship

Students work with a public agency, private firm, municipality, nonprofit organization, or researcher, using geospatial technology to complete a clearly defined project. At the course's conclusion, students submit a portfolio including a log, samples of the work completed, and an evaluation from the on-site supervisor. Prerequisite: GEO 305 or GEO 308, and instructor permission.

Cr 3.

## GEO 450 Topics in Geography

This course provides in-depth analysis of relevant
topics from the perspective of an economic, political, cultural, regional or other focused approach to geographic study. The topics vary depending upon current issues of significance and the special background of the instructor. Research papers are required. Prerequisite: permission of Department. Cr 3.

## GEO 458 Research Applications in GIS

An advanced workshop in geographical information systems (GIS) in which students undertake an original research project. The objective of the course is to generate a product which meets professional standards for publication or presentation at a professional meeting, allowing students to build resumes and gain exposure to a professional audience. Prerequisite: GEO $308 . \quad$ Cr 3.

# Geosciences 

Chair of the Department: Charles Fitts, Bailey Hall, Gorham
Professors: Novak, Pollock, Swanson; Associate Professor: Fitts; Laboratory Associate: Vose

In geosciences, we study the dynamic processes that have affected the history and development of the earth and continue to influence environments on its surface. Geoscience crosses traditional discipline boundaries, incorporating concepts from physics, chemistry, biology, and mathematics in the study of specific areas such as earth structure, history of life, plate tectonics, mountain building, earthquakes, ground water resources, climate, and energy resources. The geosciences curriculum is designed to give the student a solid scientific understanding of our environment using the latest tools and applications in preparation for careers in geology and geo-technical consulting, resource exploration and extraction, environmental issues involving water resources, geologic hazards, research, and government regulatory agencies.

The degree program offers students the flexibility to tailor a sequence of courses to their interests, whether they be in earth materials, large-scale crustal processes, or surficial processes relevant to environmental issues. We offer a strong field- and lab-oratory-based sequence of courses. We conduct field trips to explore, map, and measure geologic processes throughout Maine and New England. Dedicated laboratories in Bailey Hall include the Sediment Analysis Laboratory, Rock Preparation Laboratory, and X-ray Diffraction Laboratory for mineral identification. The latest digital mapping technologies are available with global positioning system (GPS) and total station surveying equipment that is used in conjunction with the Gorham Geographic Information System (GIS) computer laboratory in Bailey Hall. The Gorham GIS Laboratory offers the latest software for modern spatial analysis and remote sensing of the earth's surface. Geosciences courses integrate our available equipment and technology resulting in a strong field-based, digitally supported degree program.

We also stress and value undergraduate student research and independent study. Faculty expertise offers student research opportunities in many areas including digital outcrop surface mapping, remote sensing using multiple data sources, groundwater resource mapping and modeling, and geoarcheology. Student work is presented at a number of venues including the USM Thinking Matters conference, Maine Water Conference, Geological Society of Maine meetings, and Geological Society of America meetings.

Graduates of the program find that they are well-prepared to start careers in geologic and environmental work, science teaching, or to continue on to graduate school for advanced degrees. Our graduates work for a variety of local geologic consulting firms, Maine's Department of Environmental Protection, and teach science in K-12 schools throughout the state. Similar employment opportunities are available in other states.

More information can be found at the Geosciences Web site: www.usm.maine.edu/geos.

## Programs and Requirements

## Bachelor of Arts in Geosciences and Bachelor of Science in Geosciences

A minimum of 54 credits are required for the B.A. degree and a minimum of 71 credits are required for the B.S. degree (in addition to the University's Core curriculum requirements). The B.A. and B.S. degrees differ only in the chemistry, physics, and mathematics requirements as listed below. Majors must achieve a 2.0 grade point average and grades of C - or better in all geosciences courses.

Geosciences Course Requirements for both B.A. and B.S. degrees:
All majors must complete at least one introductory lecture and lab, to be selected from among the following courses. Note that an additional introductory lecture course may be applied to the major as three elective credits.

Introductory lecture courses
GEY 100K Volcanoes, Earthquakes, \& Moving Plates
GEY 103K Floods, Glaciers, and Changing Climate
GEY 105K Ocean Planet
Introductory lab courses
GEY 101K Laboratory Experiences in Geology

| GEY 102 K Field Experiences in Geology <br> GEY 106 K Ocean Planet Laboratory <br> Introductory lecture/lab course   |  |  |
| :--- | :--- | :--- |
| GEY |  | 109K |$\quad$ Field Geology of Maine $\quad$ All majors must complete each of the following foundation courses

In addition to the above, 20 credits of geosciences (GEY prefix) elective courses are required. Three credits of these may be at the 100 level, and the rest must be at the 200 level or higher. Students are encouraged to also explore relevant courses in other departments, depending on their interest. In particular, GIS courses are recommended for those interested in mapping or consulting, and some chemistry and environmental science courses are relevant to environmental consulting and regulation.

Original research is regarded as a significant component of liberal education. The Department encourages a choice of either the Senior Thesis (GEY 490) or Undergraduate Research in Geology (GEY 498) as part of the degree program.

Suggested Geosciences elective courses for students interested in earth materials and resources

GEY 201 Paleogeography and Global Change
GEY 240 X-ray Powder Diffraction Laboratory
GEY 302 Sedimentation and Stratigraphy
GEY 303 Igneous \& Metamorphic Rock Origins
GEY 410 Introduction to Geophysics
Suggested Geosciences elective courses for students interested in environmental geology

GEY 110K Field Studies in Environmental Geology on the Island of Lesvos, Greece
GEY 205 Water Resources: Science and Issues
GEY 207 Atmosphere: Science, Climate, and Change
GEY 208 Environmental Geology
GEY 310 Glacial \& Pleistocene Geology
GEY 420 Groundwater Flow and Quality
Suggested Geosciences elective courses for students interested in mapping
technologies
GEY 340 Digital Mapping
GEY 360 Field Mapping in the Island Environment: Data Collection to GIS
Non-Geosciences course requirements for the B.A. degree
CHY 113K Principles of Chemistry I
CHY 114 K Laboratory Techniques I
PHY 111 K Elements of Physics Laboratory I
PHY 114K Introductory Physics Laboratory I
MAT 120D Introduction to Statistics OR MAT 152D Calculus A
Non-Geosciences course requirements for the B.S. degree
CHY $113 \mathrm{~K} \quad$ Principles of Chemistry I
CHY 114 K Laboratory Techniques I
CHY 115 Principles of Chemistry II
CHY 116 Laboratory Techniques II
PHY 121 K General Physics I
PHY $\quad 114 \mathrm{~K} \quad$ Introductory Physics Laboratory I
PHY 123 General Physics II
PHY 116 Introductory Physics Laboratory II
MAT 120D Introduction to Statistics
MAT 152D Calculus A
MAT 153 Calculus B

## Minor in Geosciences

A minimum of 17 credits of GEY courses are required, including an introductory lecture, an introductory lab, and 13 additional credits of GEY electives, 10 of which must be numbered 200 or higher.

## GEY 100K Volcanoes, Earthquakes, and Moving Plates

An introduction to minerals, rocks, and the processes that have continually shaped the earth over hundreds of millions of years of geologic history. The course also explores how the movements of crustal plates generates earthquakes, volcanoes, continental rifting, sea floor spreading, subduction, and conti-nental-scale mountain ranges. For K credit, registration in one of the following: GEY 101K, GEY 102 K , or GEY 106 K is required; concurrent registration is recommended.

Cr. 3 .

## GEY 101K Laboratory Experiences in Geology

Weekly lab sessions will focus on the basic skills of mineral identification, rock classification, and interpretation of topographic and geologic maps. Field trips to local geologic sites of interest will help illustrate rock types and geologic processes that shape our world. Traditional map, compass, and modern GPS techniques will be utilized. For K credit, registration in one of the following: GEY 100K, GEY 103 K , or GEY 105 K is required; concurrent registration is recommended

Cr 1 .

## GEY 102K Field Experiences in Geology

This field-based lab experience will stress rock and mineral identification and map interpretation in the study of a series of local field sites. Basic geologic mapping techniques will be used to reconstruct local geologic history and create detailed maps and crosssections describing many of the spectacular outcrops in the Casco Bay area of coastal Maine. Traditional map and compass and modern GPS techniques will be used. For K credit, registration in one of the following: GEY 100 K , GEY 103 K , or GEY 105 K is required; concurrent registration is recommended. Fall semester only.

Cr 1.

## GEY 103K Floods, Glaciers, and Changing Climate

This course focuses on the external processes that shape earth's surface, including rivers, groundwater, glaciers, oceans, climate, and landslides. The course will also examine issues such as flood control, water resources, and climate change, where these external processes have large impacts on society. For K credit, registration in one of the following: GEY 101 K , GEY 102 K , or GEY 106 K is required; concurrent registration is recommended.

Cr 3.

## GEY 105K Ocean Planet

An interdisciplinary look at the science of the ocean, emphasizing connections between land, sea, and atmosphere. Basic concepts in chemistry, geology, physics, and biology are taught as they apply to marine phenomena such as salinity, ocean floor formation, currents, waves, seafloor sediments and rocks, and marine life. Students must have fulfilled the University's minimum proficiency requirements in mathematics. For K credit, registration in one of the following: GEY 101 K , GEY 102 K , or GEY 106 K is required; concurrent registration is recommended.

Cr 3.

## GEY 106K Ocean Planet Laboratory

Major concepts from GEY 105K are illustrated using hands-on activities. Students perform a variety of tasks designed to promote understanding of scientific methods and data analysis. Classes held in the lab include a range of chemical, physical, and geological exercises. Field trips may involve observing a variety of coastal phenomena including waves, beach formation, rocky shoreline geology, or intertidal zonation. Students must have fulfilled the University's minimum proficiency requirements in mathematics. For K credit, registration in one of the following: GEY 100 K, GEY 103 K , or GEY 105 K is required; concurrent registration is recommended.

Cr 1.

## GEY 109K Field Geology of Maine

This introductory course uses a field-based approach to understanding earth materials and the processes of crustal deformation, igneous intrusion, and surface erosion. Traditional lectures and labs are combined in a series of weekly field trips to spectacular coastal rock exposures of Casco Bay and southern Maine, where students will learn to recognize and interpret the effects of crustal and surface processes in the context of local geologic history. Traditional map and compass and modern GPS techniques will be used. Summer Session or Fridays during fall semesters.

Cr 4.

## GEY 110K Field Studies in Environmental Geology on the Island of Lesvos, Greece

 This course will consider the basic and applied geology of the eastern Aegean Sea with particular emphasis on the island of Lesvos, Greece. The course is a cooperative effort with the Department of Environmental Studies of the University of the Aegean. Rocks, minerals, and topographic maps will be studied for the purpose of interpreting the bedrock geology, geomorphology, and hydrogeology of the region. Other topics will include remote sensing, aerial geology, tectonics, use of the Brunton compass, waste disposal, coastal processes, and the impact of development. The course will consist of lectures, laboratory experiences, and field trips to many parts of the island. Offered during Summer Session only.Cr 4.

## GEY 201 Paleogeography and Global Change

This course examines the diversity of the global rock record to emphasize continental, oceanic, and atmospheric origins and changes. Geochronology, geologic time scale, plate tectonics, and magneto- and biostratigraphy will be significant topics. Laboratories will emphasize invertebrate fossil groups from the late Precambrian to the Pleistocene. Three hours lecture, three hours lab. The course may require one three-day field trip. Prerequisite: completion of a 100-level geoscience lecture and lab. Cr 4.5

## GEY 202 Landscape Evolution and Analysis

Students will consider landscapes and the processes that are responsible for their formation. Emphasis will be on the constructive processes of mountain-
building and volcanism and the erosional processes of rivers, glaciers, the sea, and wind. There will be one or two weekend field trips. Two hours lecture, two hours lab. Prerequisite: Any GEY 100-level lecture with lab or permission of instructor. Cr 4 .

## GEY 203 Mineralogy

The course concentrates on the silicate family of minerals, but also examines non-silicate mineral families. Subject areas covered include crystallography, crystal chemistry, and environments of mineral formation. In one lab each week, students will examine crystals and minerals in hand specimens. In a second lab each week, the rudiments of optical crystallography are introduced and students will examine minerals microscopically. Three hours lecture, two labs each two hours in length. Prerequisite: completion of a 100-level geoscience lecture and lab; CHY 113 K and CHY 114 K are recommended. Cr 5.

## GEY 204 Crustal Deformation

The crustal rocks exposed in coastal Maine are examined. Students learn to recognize, describe, and interpret a wide variety of outcrop-scale structures. In weekly field-based labs, students will use Brunton compasses, manual and digital stereonets, outcrop mapping techniques, GPS and clay deformation devices to analyze the local geologic structure and tectonic history. Prerequisite: completion of a 100 -level geoscience lecture and lab. Three hours lecture and four hours lab.

Cr 5.

## GEY 205 Water Resources: Science and Issues

An introduction to watershed hydrology, including precipitation, evaporation, transpiration, flow in open channels, floods, and subsurface flow. Readings of current domestic and international case studies involving water resource issues are incorporated where appropriate. Prerequisites: PHY 111 K or PHY 121 K and successful completion of the University's Core requirements in composition (C) and mathematics (D).

Cr 3.

## GEY 207 Atmosphere: Science, Climate, and Change

Students will be introduced to the physical and chemical processes active in the earth's atmosphere. Specific topics include atmospheric circulation, atmospheric chemistry, climate patterns, storms, natural atmospheric change in recent geologic time, human-induced atmospheric change, and atmospheric pollution. Prerequisite: CHY $113 \mathrm{~K}, \mathrm{CHY} 114 \mathrm{~K}$.

Cr 3.

## GEY 208 Environmental Geology

Examines the effect of geological processes and products on human civilization. Specific topics will include earthquakes, volcanoes, landslides, floods, sinkholes, human impact and erosion at the coastal zone, waste disposal, groundwater use and contamination, climate change, energy resources, and mineral resources. Laboratory experiences complement the lecture and will include several field trips to local sites. Three hours lecture, two hours lab. Cr 4.

## GEY 240 X-Ray Powder Diffraction <br> Laboratory

This is an applications laboratory designed for junior or senior level majors in geosciences, or any discipline that requires the characterization and identification of crystalline solids. Students will develop a working knowledge of elementary crystallography, sample preparation and identification using x-ray diffraction. Projects will utilize a series of increasingly complex materials and mixtures, culminating with a narrowly defined research project. Prerequisite: GEY 203 or concurrent or CHY 113 K and CHY 114 K or concurrent, or permission of instructor.

Cr 1.

## GEY 302 Sedimentation and Stratigraphy

Students focus on the processes that produce sediments and the mechanisms by which they are eroded, transported, and deposited. By carefully examining the motifs, models, and characteristics found in the sediment composition, texture, and features in modern-day sedimentary environments, clues can be found to understanding the historical sedimentary record. Three hours lecture, three hours lab. Prerequisite: GEY 202 or permission of instructor.

Cr 4.5 .

## GEY 303 Igneous and Metamorphic Rock Origins

An introduction to the diversity and global distribution of igneous and metamorphic rocks. Students will examine the physical conditions and environments where igneous and metamorphic rocks form. Such environments include mid-ocean ridges, island arcs, convergent margins, and intraplate settings. Topics include: styles of volcanic eruptions, intrusive igneous rocks, regional metamorphism, and metamorphic belts. Labs will cover rock identification, computer exercises, and petrographic microscopy. Three hours lecture, three hours lab. The lab and lecture will occasionally be combined into half or full day field trips. Additionally, one weekend field trip will be offered. Prerequisite: GEY 203.

Cr 4.5.

## GEY 310 Glacial and Pleistocene Geology

Glacial processes, deposits, and the stratigraphy of the Pleistocene epoch. Emphasis on the erosional and depositional features of glacial events in Maine. One, possibly two, weekend field trips. Prerequisite: GEY 202 or permission of instructor. Three hours lecture, two hours lab.

Cr 4.

## GEY 340 / GEO 340 Digital Mapping

Students are exposed to the latest digital survey gear and integrated techniques with applications in geosciences, geography, and environmental science. Instrumentation includes both static and real time kinematic GPS (global positioning system) and autolock servo-driven electronic total station. Detailed precision survey data are combined with geo-referenced maps and imagery in GIS software. Six hours lecture/lab. Prerequisites: introductory course in GEY, GEO, or ESP and additional 200level course in any of the above areas. Cr 4.5 .

## GEY 360 Field Mapping in the Island Environment: Data Collection to GIS

The coast of Maine provides a unique laboratory for teaching geologic and environmental mapping, data compilation and data management. In this course students are trained and equipped to use kayaks as the platform from which to conduct survey work for the preparation of small-scale high-resolution analytical maps of natural, historical, and archaeological phenomena. Field techniques used include topographic surveying, global positioning system (GPS) operation, and field mapping of geological and geographical features. Minimum impact methods are used throughout. Laboratory techniques used include air-photo interpretation, traditional cartography and geographic information system (GIS) operation. The course culminates in the completion of a portfolio of maps and a GIS database covering the area surveyed. Offered during Summer Session only. Prerequisite: junior/senior standing or permission of instructor. May be repeated for credit. Cr 6 .

GEY 400 Cooperative Education in Geosciences Students have opportunities to relate academic knowledge and practical job experience. Arrangements can be made with various agencies, businesses, and industries to employ qualified students. The student's work should be in a field related to geoscience. Approval is on an individual basis, depending on the nature of the job and specific work assignments. Evaluation is typically done through a written report that summarizes the work experience, with input from the employer and a faculty advisor. Prerequisite: junior/senior standing or permission of instructor. May be repeated for a maximum of 6 credits.

## GEY 410 Introduction to Geophysics

Students investigate the mechanics of earth's structure and dynamics, as well as applications of geophysics to resource exploration and environmental investigation. In the context of both plate tectonics and applied geophysics, specific topics include magnetics, seismology (earthquake seismology, seismic refraction, seismic reflection), gravity, and
heat flow. Prerequisites: MAT 152D and PHY 121K or permission of instructor.

Cr 3.

## GEY 411 Environmental Geophysics

Students will become familiar with the most common geophysical field methods used in all phases of environmental investigations, including data collection, data processing, report preparation, and public presentation. Field and lab exercises are incorporated to provide hands-on experience in the methods, and to introduce students to common geophysical instrumentation. Prerequisites: GEY 100 K and GEY 410.

Cr 4.

## GEY 420 Groundwater Flow and Quality

A survey of groundwater processes covering the following topics: water balance, basic fluid mechanics, groundwater flow equations, flow to wells, flow in various geologic environments, groundwater quality, and groundwater contamination. Some case studies will be included. Prerequisite: a $100-\mathrm{level}$ GEY lecture course, CHY 113K (may be taken concurrently), MAT 152D, and PHY 111K or PHY 121 K , or permission of instructor. Three hours lecture, two hours lab/recitation. Cr 4.

## GEY 490 Senior Thesis

The student develops an in-depth research paper about an original research theme. A thesis topic is chosen in consultation with a faculty advisor in the semester prior to registration. May be repeated for a maximum total of 6 credits. Prerequisite: senior standing and permission of instructor. Cr 3-6.

## GEY 498 Undergraduate Research in Geology

Students have the opportunity to work independently or as research assistants to Geoscience faculty conducting original geologic research. Research may involve analysis of geologic samples or data, field mapping, or literature review. The topic is chosen in consultation with a faculty advisor in the semester prior to registration. May be repeated for a total of 6 credits. Prerequisite: permission of the instructor.

Cr 1-3.

## History

Chair of the Department: David Carey, 200 Bailey, Gorham
Professors: Albee, Cole; Associate Professors: Carey, Eagan, Holden, Johnson, Tuchinsky, Whitmore, Zhao; Assistant Professor: Bischof

History, as a domain of knowledge, embraces all past human activity. There is no phenomenon without history. Historians endeavor to discover and organize facts about people and events and to create from them meaningful explanations and narratives.

Through a series of introductory and advanced courses, history majors become familiar with past knowledge, the forces of change, and the varieties of historical scholarship dealing with societies throughout the world. They also learn to collect, evaluate, organize, and interpret evidence, and to present it in oral and written forms.

Students with grounding in historical knowledge possess the central core of an excellent liberal arts education which may be used in numerous ways, including active citizenship, graduate school, and various occupations.

The Department of History offers a major that leads to a bachelor of arts degree and a minor for students majoring in other disciplines. The major consists of 39 credit hours in history plus a foreign language requirement. The minor consists of 18 credit hours in history. In addition, the Department offers an internship program in cooperation with area historical societies, museums, libraries, and other institutions.

Majors should, after consultation with an advisor, focus at least three of their history electives ( 300 -level courses) upon a particular country, continent, era, or theme of their choosing and select courses from other departments that complement this concentration.

College Level Equivalency Program (CLEP) examinations are available in Western Civilization and United States History. Unusually well-prepared entering students who pass one or more of these examinations may substitute 300 -level course(s) for the HTY 101I/102I and/or HTY 121I/122I/123I introductory surveys.

A history major or minor must achieve at least six credits of B or better grades in history courses. No grade of D will count toward fulfillment of a history major or minor. No required course may be repeated more than once. Majors and minors are reminded that, in addition to Department requirements, they must also meet those of the University Core curriculum.

## Bachelor of Arts in History

History Requirements
To graduate with a bachelor of arts in history, a student must successfully complete a minimum of 39 credits in history courses as follows:

Field I

| HTY | 101I | Western Civilization I |
| :--- | :--- | :--- |
| HTY | 102I | Western Civilization II |

Field II (complete one of the following pairings)
HTY 121I and one other: HTY 122I, 123I, or 142I
HTY 122I and one other: HTY 121I, 123I, 141I, or 142I
HTY 123I and one other: HTY 121I, 122I, or 141I
HTY 141I and one other: HTY 122I, 123I, or 142I
HTY 142I and one other: HTY 121I, 122I, or 141I
Field III (select two)
HTY 152 I The Islamic Near East
HTY 171I Traditional East Asia
HTY 172I Modern East Asia
HTY 181I Latin America I
HTY 182I Latin America II
Research methods course
HTY 200 Reference, Research, and Report Writing
Elective advanced history courses
Select five 303-399 level courses in consultation with your major advisor.
The Department of History will occasionally double-list upper-level courses from other departments. History majors may count only one course offered by
another department and double-listed as a history course as fulfilling a history major requirement.
HTY $400 \quad$ Senior Seminar

## Foreign Language Requirement

Students majoring in history must demonstrate an intermediate competence in one foreign language as part of the Departmental requirements for graduation. This requirement can be fulfilled by achieving a grade of at least C - in the final semester of an intermediate level course or by examination, and by approved international programs and study abroad experiences. Students should consult with their advisor about these options.

Completion of the following courses at USM fulfills the language requirement:
American Sign Language: ASL 202 I (Intermediate American Sign Language)
French: FRE 202I (Intermediate French II) or FRE 207I (Intensive Intermediate French) or FRE 206 (Reading French II)

German: GER 202 I (Intermediate German II)
Greek: GRE 251 (3rd semester Ancient Greek)
Latin: LAT 251 (3rd semester Latin)
Russian: RUS 202I (Intermediate Russian II)
Spanish: SPA 202I (Intermediate Spanish II) or SPA 207I (Intensive Intermediate Spanish)

## Minor in History

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 18.

USM students who desire a concentration in history must develop an 18-credithour minor. The program must be developed in consultation with a member of the history faculty and include at least four courses at the level of 200 and above.

Requirements: six courses in the History Department, at least four of which must be at the level of 200 and above (approved by the Department chair).

## HTY 101I Western Civilization I

A basic survey and introduction to the heritage of Western society from ancient to early-modern times. Particular attention is given to the ancient civilizations of Egypt, Greece and Rome. Medieval civilization is explored with a focus on the institutions it bequeathed to the modern world. The Renaissance and Reformation and the rise of the great nation-states are studied. Throughout the course important individuals are considered such as Alexander the Great, Caesar, Charlemagne, Michelangelo, and Elizabeth I. The course also introduces students to historical method. Cr 3.

## HTY 102I Western Civilization II

A basic survey and introduction to the heritage of Western society from early modern times to the atomic age. Particular attention is given to the Enlightenment, the French Revolution, the rise of the industrial era, the growth of nationalism, and the World Wars. Personalities such as those of Napoleon, Hitler, and Stalin are studied. The course also introduces students to historical method. Cr 3.

## HTY 121I United States History to 1800

A thematic treatment of the formative period of early American history from the era of European colonial expansion to the so-called Revolution of 1800. Political, social, economic, intellectual, and institutional development provides a context for addressing the peoples, personalities, and events of the colonial and early national stages of growth of the United States and its relations with the larger world. Cr 3.

## HTY 122I United States History 1800 to 1900

A thematic treatment of the nineteenth-century United States and its peoples. Chronological coverage of the nation's political, social, economic, intellectual, and institutional development provides the context for addressing the personalities and events of the country and its relations with the larger world.

Cr 3.

## HTY 123I United States History since 1900

A continuation of the treatment of the American people and nation extends coverage of political, social, economic, intellectual, institutional, and diplomatic development through the twentieth century. The events, issues, and peoples of the modern nation and their relation to the larger world are covered within the country's increasing international involvement.

Cr 3.

## HTY 141I African American History to 1865

Topics covered in this survey course include the persistence of African culture in the Americas, the Atlantic slave trade, an in-depth analysis of slavery as it impacted women and children, and the early African American voice as found in primary sources. The course will use various forms of media in instruction and research.

Cr 3.
HTY 142I African American History from 1865
A continuation of HTY 141. This course will cover
such topics as Black leadership, lynching, the Harlem Renaissance, African Americans abroad, civil rights, and popular culture. The course will use various forms of media in instruction and research. Cr 3.

## HTY 152I The Islamic Near East

This is a basic, introductory survey of the history of the eastern Mediterranean/Near Eastern region ca. 600 C.E. to the present. The course emphasizes the origin and development of Islamic religion and the establishment, spread, and evolution of Islamic institutions in Arabia, Egypt, Mesopotamia (Iraq), Palestine-Syria, and Anatolia (Turkey). Attention is given to the historical and continuing interaction between the Islamic people of the Near East and nonIslamic people both within and without the region.

Cr 3 .

## HTY 171I Traditional East Asia

The history and culture of China and Japan from earliest times to about 1700 , with emphasis on the composition of the "traditional" societies. Cr 3.

## HTY 172I Modern East Asia

China and Japan since about 1700, emphasizing contrasting moves toward modernization in two traditional societies.

Cr 3.

## HTY 181I Latin America I

This survey outlines the nature of the preColumbian Indian civilizations, their conquest by the European powers and the creation of the Hispanic and Portuguese empires in America. Cr 3.

## HTY 182I Latin America II

This survey begins with the shattering of Iberian colonialism, and moves rapidly into the twentieth century. Special attention is given to Mexico, Brazil, Argentina and Cuba, and their varying solutions to the problem of national development. Cr 3.

## HTY 200 Reference, Research, and Report Writing

An introduction to research and writing, designed to prepare undergraduates for the requirements of upper-level courses in history and the social sciences with emphasis on practical methods of utilizing a library, locating materials, taking and organizing notes, and writing and rewriting research papers and reports. History majors are strongly encouraged to take this course in the sophomore year, but no later than the first semester of the junior year. Preference to history majors. Prerequisite: sophomore status or permission.

Cr 3.

## HTY 300 History Internship

Professional experience in one of a variety of positions in public and private institutions that utilizes the knowledge and research skills of historians. Students work one day per week, keep a journal, write an evaluation, and are visited on the job by a faculty member. Open to selected students; see Department chair for details. Graded pass/fail, so does not count for major credit. Can be taken twice.

Cr 3.

## HTY 303 History of the Ancient Near East and Greece

This course surveys the early history of the eastern Mediterranean region from ca. 4000 to ca. 300 B.C.E. The evolutions of Near Eastern civilizations in Mesopotamia, Egypt, Israel/Palestine, and Anatolia are examined and related to the development of Greek civilization in the Aegean area. Special attention is given throughout to social and religious issues, e.g., the early history of Judaism. Prerequisite: HTY 101I or equivalent.

Cr 3.

## HTY 304 History of Rome

This course surveys the political, social, and religious history of the Roman state from the eighth century B.C.E. to the fifth century C.E. Emphasis is given to the period of the Roman Republic (509-31 B.C.E.) and to the rise of Christianity within the Roman Empire. Prerequisite: HTY 101I or equivalent. Cr 3.

## HTY 305 The Historical Jesus

This course is a "workshop" wherein the participants analyze and evaluate a variety of documents (both ancient and modern) which purport to describe the life and career of Jesus of Nazareth. The goal is to develop historiographical skills (including writing) as well as to illuminate the subject's life. Cr 3 .

## HTY 306 Roman Sexuality and Early Christianity

This course will explore ancient Roman relations concerning human biology, sexuality, and morality; the structure and definition of "family"; the genderconscious operation of the extended household (including slaves and free clients); and the relationship of the family to the Roman state. The primary focus is the Roman imperial period, ca. 100 B.C.E. to 300 C.E. Because this same period witnessed the origins of Christianity within the Roman Empire, the course also is concerned with Christian variations to these same issues.

Cr 3.

## HTY 307 Judaism, Christianity, and Islam: Origins and Interactions

This course will survey the origins, nature, and early history of the world's three major monotheistic religions: Judaism, Christianity, and Islam. Necessarily this involves a survey of the history of the Mediterranean/Near Eastern world in which these religions first appeared and prospered. The chronological focus is ca. 600 B.C.E. to ca. 800 C.E. Cr 3.

## HTY 308 Polytheists, Jews, and Christians in the Roman Empire

This course, an exploration of the nature and function of religion in human society, uses the Roman Empire as a sample environment. The course will examine these independent religious communities as well as their interactions.

Cr 3 .

## HTY 309 Religious Violence and Persecution in Early Western History

An interdisciplinary investigation of religious violence and persecution in early Western history. The
course explores why religion and violence so often seem to be connected. Accordingly, the course will explore the general nature of religion and the historical function of religion in human society. Cr 3 .

## HTY 311 Medieval Civilization

Europe from late antiquity through the Carolingian Empire, Islamic Empire, Byzantine Empire, Medieval Church and State, and the coming of the Renaissance and Reformation. Prerequisite: HTY 101I or permission.

Cr 3.

## HTY 312 Renaissance and Reformation

A study of the transformation of European society from the world of the Renaissance to the crisis of the Reformation. The course will concentrate on the development of Italian humanism and its influence on Northern Europe. The rise of the Reformation will be examined through the personalities of Martin Luther and John Calvin and the intense feelings that engendered the religious wars and the Counter Reformation. Prerequisite: HTY 101I or permission. Cr 3.

## HTY 316 French Revolution and Napoleon

The course takes the French Revolution as a climax of major intellectual, political, and social trends in eighteenth-century Europe. Thorough coverage is given to the Old Regime, the Enlightenment and the influence of the American Revolution. There is indepth analysis of the coming, course and outcome of the French Revolution itself, and its impact outside France. The Napoleonic era is handled as the culminating phase of the revolution and as a major influence on nineteenth-century Europe. Prerequisite: HTY 102 I or permission. Cr 3.

## HTY 317 Early Russian History

A survey of the political, social, economic, and cultural history of the peoples of Russia to the midnineteenth century. The course covers geographical factors, the nature of Byzantine influence, the impact of invasions, and Russia's contacts with the West. Contrasts between the experiences of Russia and Western Europe are stressed; contrasts with other civilizations are also noted. Prerequisite: HTY 101I or HTY 102I, or permission.

Cr 3.

## HTY 318 Russia and the Soviet Union Since 1855

A survey of the progression from autocratic to communist society, through such influences as internal pressures for reform, structural weaknesses, wars and invasions, and various ideologies. The role of the intelligentsia is noted in the nineteenth century; there is a strong emphasis on cultural aspects of Russian and Soviet developments. Prerequisite: HTY 102I or permission.

Cr 3.

## HTY 324 World Wars I and II: European War and Diplomacy

A study of the causes, course, and consequences of the First and Second World Wars. The questions of inevitability and responsibility, the nature of total
war, the workings of alliances, the effect of the military upon politics, the wisdom of the peace settlements, and the impact of war upon European society are among the subjects to be considered. Prerequisite: junior or senior status.

Cr 3.

## HTY 326 History of England

A survey of England from Anglo-Saxon times to the beginning of the twentieth century, with emphasis on the nature of English monarchy, the development of political institutions, and evolving constitutionalism. Particular attention is given to broad movements such as the Reformation, the Industrial Revolution, and Imperialism. Prerequisite: HTY 101 I or permission. Cr 3 .

## HTY 330 Germany: Bismarck To Hitler

A study of the formation of the German Empire, the rise of a powerful industrial state, Weltpolitik and defeat in World War I, the Weimar Republic, Nazism and the Third Reich, Germany in World War II, and the partition of Germany in 1945. The course analyzes nationalism and examines cultural, social, and economic factors which help clarify Germany's role in the modern world. Prerequisite: junior or senior status.

Cr 3 .

## HTY 334 The Holocaust: Policy, Practice, Response

An examination of the roots of anti-Semitism in European history, the development of the policy of the extermination of the Jews and others in Nazi Germany, and the implementation of the policy throughout Europe during the Second World War. The varied aspects of the response of individuals and governments to the experience of the Holocaust are also considered. Prerequisite: HTY 102I. Another course in twentieth-century Europe or the United States is also recommended.

Cr 3 .

## HTY 335 Genocide in Our Time

This course will analyze the nature of evil/genocide by examining examples of governmentally or ideologically initiated murder. It will seek to understand the historical background and reality of victim, bystander, and victimizer. It will use a number of approaches, namely psychological, philosophical, religious, sociological, and political to help our understanding. Prerequisite: permission of the instructor.

Cr 3.

## HTY 339 European Women's History

A survey of women's lives in historical context, from ancient times to the twentieth century. Emphasis is placed on various themes over time and across cultures, including those of work, family, political involvement, aspects of gender and class differences, and intellectual and cultural contributions. The field of women's history and its methodology are also considered. Prerequisite: a prior history survey course and/or a women's studies course are recommended.

Cr 3 .

## HTY 351 Colonial America

The first half of the semester is devoted to the discovery, exploration and colonization of the American colonies. The second half concentrates on the social and political development of these colonies, touching upon various aspects of colonial life and emphasizing the growing maturation of society. Prerequisite: HTY 121I or permission.Cr 3.

## HTY 352 The American Revolution

A study of the 1763-1789 period, stressing the breakdown of Anglo-American relations; American independence and its ideological underpinnings; the Revolutionary War; the postwar struggle to strike a balance between too much government and too little; and the drafting and ratification of the U.S. Constitution. Prerequisite: HTY 121I or permission.

Cr 3.

## HTY 354 Hamilton and Jefferson

The 1789-1815 period as viewed through the lives of Alexander Hamilton and Thomas Jefferson. Their ideological struggle leading to the rise of the Federalist and Democratic-Republican parties, and the political, economic, and diplomatic challenges facing the infant United States will be considered extensively. Prerequisite: HTY 122I or permission. Cr 3.

## HTY 355 The Age of Jackson, 1815-1850

A study of the life and times of the "Old Hero" Andrew Jackson, with extensive consideration given to the rise of Jacksonian democracy and the impact on American politics of the controversies surrounding the Bank of the United States, internal improvements, the protective tariff, "Manifest Destiny," and the sectional-slavery issues. Prerequisite: HTY 122I or permission. Cr 3.

## HTY 356 Civil War and Reconstruction

An examination of the period 1850-1877, dealing with the background and causation of the war; Lincoln and the secession crisis; the military, political, diplomatic, and economic aspects of the Civil War; and the challenges and ultimate failure of reconstruction after 1865. Prerequisite: HTY 122I or permission.

Cr 3.

## HTY 357 The Gilded Age in America, 1869-1898

The United States in the age of enterprise with emphasis on the development of political and economic radicalism, the commercialization of agriculture, the rise of the American city, new directions in social thought, concentration of industrial wealth and financial power, and American foreign policy. Prerequisite: HTY 122I or permission. Cr 3.

## HTY 358 Early Twentieth-Century United

 States, 1898-1938The United States from 1898 to 1938. Analysis and interpretation of cultural, economic, and political developments of the Progressive Era, World War I, the 1920s, and the Depression and New Deal. Prerequisite: HTY 123I or permission. Cr 3.

## HTY 359 The United States since 1939

The United States from the Depression and New Deal through World War II, the Cold War, the Civil Rights Movement, and the Vietnam War. Discussion of economic, political, and social developments and interpretation of these developments. Prerequisite: HTY 122I or permission. Cr 3.

## HTY 360 History of Maine

A survey of Maine's social, economic and political life from exploration and early settlement to the present.

## HTY 361 History of the American Frontier

The Turner thesis, historiography, and adaptations to the challenges of the environment are considered. Various frontiers from the Atlantic seaboard to the last frontier on the Great Plains are studied. Prerequisites: two of the following: HTY 121I, 122I, and 123I or permission.

Cr 3.

## HTY 364 History of Women in the United States

A chronological survey of the evolving role of women in the development of the United States from the colonial period to the present. Cr 3.

## HTY 366 History of Religion in America

A history of religion in American society from the colonial era to the present, examining theology, organization, leaders, critics, and the religious contribution to the American experience. Prerequisites: two of the following: HTY 121I, 122I, and 123I or permission.

Cr 3.

## HTY 372 American Social and Intellectual History I

An analysis of the evolution of American religious, political, economic, social, and scientific thought from the colonial period to 1865 . The course examines major principles, assumptions, and values; the relation of American thought to class structure, ethnic and racial associations, mobility, and immigration; and the relation of American thought to contemporary intellectual patterns in the Western world. Prerequisite: HTY 121I or 122I or permission. Cr 3.

## HTY 373 American Social and Intellectual History II

A continuation of HTY 372 from 1865 to the present. Prerequisite: HTY 121I or 122I or permission.

Cr 3.

## HTY 377E Chinese Thought

Prior to the modern era, the Chinese interpreted their world through traditional idea systems, the most prominent of which were Confucianism, Taoism, and Buddhism. This course will explore these traditions: their assumptions and values, their varieties and internal tensions, and their relationships to the larger social system. Prerequisite: HTY 171I recommended.

Cr 3.

## HTY 378 Diplomatic History of the United

States I
This course covers the development of key United States foreign policies from the Revolution to 1913-14. Prerequisite: HTY 121I or 122I or permission.

Cr 3 .

## HTY 379 Diplomatic History of the United States II

Analysis and discussion of United States foreign policy since 1914. Considers the origins and effects of policy and also differing interpretations of issues such as the nature of "isolationism" and "interventionism," the origins of the world wars and the Cold War, the meaning of "Vietnam," and the relative influence of economics and ideology in shaping policy and action. Prerequisite: HTY 123I or permission. Cr 3.

## HTY 380 The 1960s

This course examines social, political, economic, and cultural developments in the United States in the period from 1960 to 1970. It also looks at events worldwide, and the contested meaning of "The Sixties."

Cr.3.

## HTY 381 Latin America and the United States

A survey of U.S.-Latin American relations with emphasis on the efforts of the U.S. government and multi-national corporations to adjust to the growth of nationalism, state capitalism, and socialism in Latin America.

Cr 3.

## HTY 383 The Society and Culture of Latin

## America

This seminar seeks to examine, through the use of popular novels and films, the principal characteristics of Latin American culture. Such elements as the role of dictators and revolutionaries, of machismo and imperialism, and of great haciendas, folklore, and religions will be considered.

Cr 3.

## HTY 388 Revolution of Modern China

A course on the political history of modern China from the 1840s to the present. Focusing on the political, social, and cultural revolutions, this course will examine their causes, courses, and consequences, particularly the ways in which these revolutions shaped the course of the political development of modern China. Prerequisite: HTY 172I recommended. Cr 3.

## HTY 390 Traditional Japan: Court and Warriors

This course examines Japanese history before 1800. The primary focus will be on major political and social trends that led to the transformation of state and society. Attention will also be given to religious beliefs, rituals, art, and literature. Prerequisite: HTY 171I recommended.

Cr 3.

## HTY 394 Selected Topics in History

An analysis of a selected historical problem not already covered by regular course offerings in history will be offered. The course may be repeated for
credit when different topics are offered. (Offered occasionally.)

## HTY 397 Independent Study Semester

This is the course designator for students who participate in the History Department's semester abroad exchange program with University College Winchester in England. Cr 3-15.

## HTY 398 Independent Study in History

An independent research course offered only in fall or spring semester, primarily for juniors and seniors. The course material should not be part of regular department offerings. To enroll for the course, the student, in the prior semester, must present a proposal to an appropriate professor who will agree to mentor and evaluate the project. The normal outcome is a research paper. Application forms are available in history offices on both campuses. Cr 3.

## HTY 400 Senior Seminar

The capstone to the major and required for the degree, this seminar explores the nature and the craft of history. The topic will vary but will always be a particular theme or set of issues to which the student will be expected, through discussion and writing, to apply the knowledge and skills acquired in previous history courses. Prerequisites: HTY 200 and senior status. Preference to history majors. Cr 3.

Other courses in the College of Arts and Sciences have historical interest. With prior approval from the Department, majors may apply one such course toward their history requirements. Majors also are encouraged to take such courses as supplementary electives.

## Linguistics

Chair: Wayne Cowart, 65 Exeter Street, Portland
Professors: Cowart, Kegl, McDaniel; Lecturer: Schertz
Language plays a crucial role in almost every aspect of human life; it is fundamental to commerce, government, education, science, technology, the arts, and the mass media. The field of linguistics is devoted to the study of language, its nature, its uses, and its limitations. Because of its wide relevance, undergraduate study in linguistics can be a springboard to careers in many areas, from education to computer science.

The linguistics major consists of linguistics courses designed to foster a deep understanding of human natural language, including an appreciation of the structure and organization of natural languages, the variety of natural languages, the commonalities that underlie the vast apparent differences among languages, the processes of language acquisition in children, the psychological and neurological bases of language use, and the form and significance of social variation in language.

Beyond this intellectual foundation, students have three options. They can major in general linguistics or they can choose one of two concentrations: ASL/English interpreting or speech and language science. These options are designed to meet the needs of three specific categories of student. The ASL/English interpreting concentration is intended for students who wish to eventually become nationally certified ASL/English interpreters. The general linguistics major serves students who have an interest in language as an aspect of human nature or who wish to pursue graduate education in language-related areas. The speech and language science concentration is designed for students who wish to pursue a career in speech-language pathology, audiology, or related disciplines.

The goals of the linguistics major are 1) to help each student develop an understanding of the nature of natural language, 2) to help each student develop a foundation of more specialized expertise relevant to the student's career goals, and 3) to help each student compile a record of achievement that will facilitate the student's search for employment or further education.

## Programs and Requirements

The number of credits required to complete the major in linguistics: 48-54 (depending upon the concentration; exclusive of the University Core curriculum). The requirements for each option are:

General Linguistics:
LIN 185J
LIN 311
LIN 312
LIN 313
LIN 314
LIN 315
One 200-, 300-, or 400-level LIN course (three credits) or one of the languagebased courses offered by the English Department (ENG 230, 330, 331, 332, $336,337,338,431)$
One 300- or 400-level LIN course (three credits)
Two 400-level LIN courses (six credits)
LIN 490
LIN 498
Four semesters of language study (number of credits varies depending on course)
Total: 48+ credits (the number varies depending on the choice of language courses)

ASL/English Interpreting Concentration:
LIN 185J
LIN 305
LIN 310
LIN 313
LIN 422

LIN 331
LIN 332
LIN 333
LIN 334
ASL 301, 302, or 303
ASL 401
ASL 402
One of LIN 405, 413, or 498; or six credits of LIN 425 (topics) courses
LIN 435 (six credits)
Total: 48 or 51 credits
Speech and Language Science Concentration:
LIN 185J
LIN 201J
LIN 211
LIN 212
LIN 213
LIN 310
LIN 311
LIN 312
LIN 313
LIN 314
LIN 315
One 400-level LIN course (three credits)
LIN 490
Four semesters of language study (number of credits varies depending on course)
Total: 51+ credits (the number varies depending on the choice of language courses)

## Language Component

Students pursuing the general linguistics major and speech and language science concentration must complete four semesters of a language or languages other than their native language. Students may choose to take four semesters of the same language or to divide the four courses among two or more different languages. The language courses may be waived on a case-by-case basis for students who demonstrate the equivalent degree of competency in a language or languages. In such cases, students replace the language course credits with other linguistics courses (or possibly with linguistics-related courses in other areas). The substitutions are made in consultation with the student's advisor. Students pursuing the English ASL/interpreting concentration must have taken four semesters of ASL (101-202I) or have attained a level of proficiency equivalent to four semesters. These courses (or the equivalent) do not count as credits toward the major, but are prerequisites to the interpreting courses and upper-level ASL courses.

## Scheduling

In the ideal case, students should begin the major before registering for the second semester of the sophomore year. They should take LIN 185J at the earliest opportunity. Students majoring in general linguistics or in the speech and language science concentration should also take a statistics course (PSY 105D or MAT 120D) early on.

Students enrolled in the major are expected to maintain regular contact with the linguistics faculty and to participate in or attend various linguistics events (guest lectures, colloquia, etc.) that will be scheduled from time to time.

Students who do outstanding work in the major can graduate with honors in linguistics. The requirements for this distinction are:

- Achieve a G.P.A. of at least 3.7 in LIN courses.
- Earn a grade of ' B ' or higher in all language courses that count toward the major.
- Submit a portfolio of linguistic activities approved by the Department. (The portfolio documents linguistic activities outside of required coursework.

Examples of such activities include independent study and research internship courses, tutoring, and attendance at linguistics conferences. Students who plan to submit a portfolio should discuss the details with their advisor.

- Earn a grade of 'A' on the senior thesis (LIN 498).

Students majoring in linguistics with a concentration in ASL/English interpreting graduate with honors in linguistics if they meet the following requirements at the time of graduation:

- Achieve a G.P.A. of at least 3.7 in LIN and ASL courses.
- Complete the following additional LIN courses with a grade of 'B' or higher: LIN 311, 312, 314, 315, and 490

Students majoring in linguistics with a concentration in speech and language science graduate with honors in linguistics if they meet the following requirements:

- Achieve a G.P.A. of at least 3.7 in LIN courses.
- Receive a grade of ' $B$ ' or higher in all language courses that count toward the major.
- Submit a linguistic activities portfolio that is approved by the Department. (The portfolio documents linguistic activities outside of required course work. Examples of such activities include independent study and research internship courses, tutoring, attendance at linguistics conferences.) Students who plan to submit a portfolio should discuss the details with their advisor.
- Complete a senior thesis (LIN 498) and earn a grade of 'A'.


## Minor in Linguistics

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor in linguistics: 18. A minor in linguistics consists of LIN 185J, at least three courses from LIN 310-315, one 200-, 300-, or 400-level LIN course (three credits) and one 400-level LIN course (three credits).

## Minor in Deaf Studies

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor in Deaf studies: 22. A minor in Deaf studies consists of the following courses: LIN 203I, ASL 201I, ASL 202I, ASL 401, ASL 402, one of LIN $305,310,315,395$, ASL 301, 302, or 303.

## LIN 112E Analyzing Language

In this course students will become aware of their tacit knowledge of the rules and principles that guide language usage. They will learn how to formulate these rules and how to test and evaluate claims about the form that the rules take. Students will thereby develop skills in analysis and argumentation that are applicable in many areas of study. The course will concentrate on the analysis of sentence structure, but will also deal with the sound system, word structure, meaning, and language acquisition.

Cr 3.

## LIN 185J Language, Mind, and Society

This course approaches language as a biological and psychological phenomenon central to an adequate understanding of human nature. It deals with linguistic questions concerning the grammars of natural languages and how these may vary across cultures and across time, but also with questions about how the human mind and brain both provide for and constrain linguistic ability. The course also addresses questions about how language develops in the child, how it deteriorates under the influence of disease and injury, how it evolved in the history of the species, and what functions it plays in human life. The course does not assume any background in linguistics or foreign languages.

Cr 3.

## LIN 201J Child Language

An introductory overview of the phenomena of language and communication development. The course covers the acquisition of phonology, morphology, syntax, and the lexicon, as well as the development of communicative competence. Each of these areas will be discussed with respect to production, comprehension, and knowledge. Prerequisite: LIN 185J.

Cr 3.

## LIN 203I Introduction to the Deaf World

A Deaf instructor presents the culture and history of Deaf communities from a national and international perspective. Deaf communities are examined as cultural and linguistic minorities, with all the tensions and conflicts that arise within such minority groups and with the stresses that arise when outsiders interact with such minority groups. Some exposure to ASL is recommended, but not required. Cr 3.

## LIN 211 Anatomy and Physiology of the Speech and Hearing Mechanism

The basic principles of the structure and function of the neuromuscular mechanism necessary for spoken language will be presented. These include six major topics: respiration, phonation, articulation, resonance, the nervous system, and the auditory system. Mastering these fundamentals will enable students to better understand normal and pathological processes involved in the production and reception of speech. Prerequisite: grade of at least B in LIN 185 J or permission of instructor.

Cr 3.

## LIN 212 Speech Science

This course covers the acoustical, articulatory, percep-
tual, and physiological aspects of speech. It considers the acoustic contributions of the movements and postures of various articulators. It will also examine the neurophysiology of speech, including timing, control, and interactions among articulators. Prerequisite: LIN 211 or permission of instructor.

Cr 3.

## LIN 213 Introduction to Audiology

This course examines the anatomy, physiology, and function of the auditory system, focusing on the central auditory nervous system relevant to speech pathologists with an interest in speech perception and central auditory processing. This course provides the foundation for understanding certain aspects of aural rehabilitation and diagnosis of auditory pathology. Examples of brain pathology will be utilized. Prerequisite: LIN 211 or permission of instructor.

Cr 3.

## LIN 232 Introduction to Educational Interpreting

This course is designed for interpreting students and working interpreters, and focuses upon skills training in K-12 settings, with some attention to univer-sity-level interpreting. We address appropriate classroom configurations, teacher/interpreter interaction, role/responsibilities of the educational interpreter, and the code of ethics. Working educational interpreters are offered the option of a diagnostic session where their skills in the classroom are directly observed and evaluated with specific and individualized constructive feedback. Prerequisite: grade of at least B in ASL 202I or equivalent.

LIN 305 Contrastive Analysis: ASL and English This course examines the major linguistic features of ASL and English. Students will gain an understanding of the basic similarities and differences in morphology, phonology, syntax, semantics and pragmatics, as well as the values, beliefs, and norms of the Deaf and non-Deaf communities. Prerequisite: ASL 102I and LIN 185J, or permission.

Cr 3.

## LIN 310 Signs of Language in the Brain

This course looks at language as a capacity of the human brain. Models of language breakdown for spoken languages are reviewed, and the remainder of the course focuses upon signed language aphasia, the effects of Parkinson's disease on articulation and motor planning, and how spatial and attentional deficits caused by right hemisphere damage affect the processing and production of signing. Prerequisite: grade of at least B in LIN 185J. Cr 3.

## LIN 311 Phonetics

An introduction to speech sounds, covering the basic elements of articulatory and acoustic phonetics and of speech perception. The course also reviews the process by which infants come to be competent at perceiving and producing the sounds of their native language. Topics discussed will also include the contributions of selected brain regions to
the use of sounds and the cross-linguistic variation in sounds. Prerequisite: grade of at least B in LIN 185 J .

## LIN 312 Phonology and Morphology

An introduction to the derivation of words in natural language. The course covers the sound system, the processes by which words are dynamically derived from other words, and the processes by which words are inflected to mark the roles they assume in sentences. Particular attention is also given to the great variety of word-building systems that occur in the world's languages and to the means by which children acquire the phonological and morphological processes of their native language. Prerequisite: grade of at least B in LIN 185J. Cr 3.

## LIN 313 Syntax

This is an introduction to the role of sentences and sentence structure in natural language. The course addresses the questions: What makes a particular string of words usable as a sentence? Why are some strings acceptable while others are not? What is the nature of the knowledge humans bring to the process of forming and interpreting sentences? How is this knowledge acquired? Why is the ability to produce and understand well-formed sentences disrupted by injury to specific brain regions? How and why do the sentence patterns that are typical of a language community change over time? Prerequisite: grade of at least B in LIN 185J. Cr 3.

## LIN 314 Semantics

An introduction to the study of meaning in natural language. The course explores questions about the nature of meanings and how they are related to minds. Another concern is the relation between words and sentences, on one hand, and the objects, events and relations we experience in the world, on the other. How are words linked to things in the world? How do words refer or describe? What is it for a sentence to be true? Prerequisite: grade of at least B in LIN 185J.

Cr 3 .

## LIN 315 Field Methods

Students learn to use a variety of elicitation and field methods techniques to explore the linguistic structure of a language that is foreign to them. They work with a native signer or speaker and apply their knowledge of linguistics to a specific aspect of the grammar of the language. Prerequisite: LIN 312 or 313.

Cr 3.

## LIN 331 ASL/English Interpreting

This course offers the beginning interpreting student an introduction to the field of interpreting, its code of ethics, and several models and approaches to the interpreting process. Students will become familiar with the complex processing required to provide a nuanced interpretation through learning a form of text analysis called discourse mapping. Prerequisites: grade of at least B in ASL 202I or equivalent; or grade of at least B in ASL 201I or

## LIN 332 Consecutive Interpreting and Deaf/Hearing Interpreter Teams

This course covers the mechanics and psycholinguistics of the consecutive interpreting process, as well as hands-on training in the consecutive method for both Deaf and hearing interpreters. Consecutive interpreting will be taught in the context of a variety of typical interpreting situations as well as situations involving special populations. Prerequisite: LIN 331.

Cr 3.

## LIN 333 Interpreting: Source Language ASL

Students focus on interpreting from ASL into English with emphasis on word choice, register, and affect. The interpreting process is dissected, examined, and practiced. With permission of instructor, this course may be repeated once with an added component of journaling observations of working interpreters using a Demand-Control Schema for analysis. May be repeated once for credit with permission of instructor. Prerequisite: LIN 331. Cr 3.

## LIN 334 Interpreting: Source Language English

Interpreting students study interpretation from English into ASL. Emphasis is placed upon appropriate sign choice, register, and affect. The interpreting process is dissected, examined, and practiced. With permission of instructor, this course may be repeated once with an added component of journaling observations of working interpreters using a Demand-Control Schema for analysis. Course may be repeated once for credit with permission of instructor. Prerequisite: LIN 331.

Cr 3.

## LIN 395 Research Internship

Students will work closely with a faculty member on a research project. They will be involved in experimental design, data collection, data entry, and data analysis, and will attend regularly scheduled lab meetings. Enrollment in LIN 395 will depend on needs determined by current research projects. Selection is made by the faculty. Students should contact the Department chair for details. May be taken more than once for a maximum of six credits. Prerequisite: permission of instructor. Cr 3.

## LIN 398 Independent Study

In preparation for this course, the student selects a topic in linguistics that is substantially different from that of any regular course and finds an instructor to serve as faculty mentor. Please see www.usm.maine.edu/lin for detailed guidelines. May be repeated for credit. Prerequisite: permission of instructor.

Cr var.

## LIN 405 Sight Translation

This is a course in translation from written English to dynamic ASL. Students will examine a variety of textual materials, including business letters, government and business forms, and selected other short
texts, with the goal of comprehending, abstracting, and translating these materials. Work will focus on the intent and force of the texts, as well as linguistic and cultural assumptions underlying them. Prerequisite: LIN 331.

## LIN 413 Supervised Mentoring

Interpreting students apprentice with a programapproved mentor and submit a weekly journal entry, attend a series of skills improvement workshops and/or engage in laboratory-based research to complete 90 contact hours of interpreting-related skills improvement activities. Students attend a biweekly meeting with interpreters to address current issues and difficult situations encountered. Special arrangements will be made for mentoring partnerships at remote sites. Prerequisites: LIN 333 and 334.

Cr 3.

## LIN 421 First Language Acquisition: Syntax

A detailed examination of the process of acquiring language in young children that concentrates on sentence structure. The course considers how children extract from the speech they hear the information that is critical to their developing ability to form sentences. It reviews questions about the nature of grammar and how grammars might be structured to facilitate language acquisition, and how various kinds of early experience do and do not contribute to acquisition. Prerequisites: LIN 185J, LIN 313. Cr 3.

## LIN 422 A Cognitive Perspective on Syntax

An introduction to the brain and mind processes by which language users produce and understand sentences, as well as to the mental representations these processes exploit. The course considers how syntactic structure interacts with processes of production and comprehension, as well as how users interpret from one language to another.. Prerequisite: LIN 313.

Cr 3 .

## LIN 425 Special Topics in ASL/English Interpreting

This seminar centers around a single topic, for example, legal interpreting, interpreting for special populations (deaf-blind, oral, cued-speech, minimal language skills assessment and interpreting), ethical issues, medical and mental health interpreting, interpreter assessment, and interpreting the 12 steps. The course will be offered in response to student interest
in a given topic and may be repeated as topics vary. Prerequisite: permission of instructor. Cr var.

## LIN 426 Special Topics in Theoretical

## Linguistics

This seminar focuses on one area of theoretical linguistics, e.g. phonology, morphology, syntax, or semantics. It will offer a more in-depth and advanced discussion than is presented in the 300level courses on these topics. The course will be offered in response to student interest in a given topic. May be repeated for credit as topics vary. Prerequisite: permission.

Cr 1-3.

## LIN 435 Advanced Interpreting

This capstone course requires completion of the student's professional interpreting portfolio and a 90hour supervised practicum or advanced research project. Students will demonstrate competence interpreting a range of dialects and registers of ASL and English produced by both children and adults. Prerequisites: LIN 332, 333, 334. Course may be repeated once with permission of instructor. Cr 3.

## LIN 490 Introduction to Language Research

An introduction to basic aspects of the experimental study of human linguistic abilities. This will include coverage of the identification of viable research questions, literature reviews, special considerations for materials preparation for language experiments, research design, sampling, control of artifacts, data handling, analysis, some special statistical considerations, and reporting conventions. Students will also be introduced to various computer resources relevant to these matters. Prerequisites: LIN 311, 312, 313,314 , and 315 (one of which may be taken concurrently); PSY 105D, MAT 120D, or an equivalent course.

Cr 3.

## LIN 498 Thesis

The topic for this thesis must be selected in consultation with the student's advisor and approved by the linguistics faculty. Students will meet regularly with their advisor as they work on the project. The finished thesis must be approved by the linguistics faculty, and should ideally be completed by the end of the fall semester of the student's senior year. Prerequisites: LIN 310 or 311, LIN 312-314, and LIN 315 or 390, as well as approval of project proposal.

Cr 3.

## ASL 102I Beginning American Sign

Language II
This is the second beginning course in American Sign Language (ASL). Prerequisite: ASL 101 or departmental permission. Cr 4.

## ASL 201I Intermediate American Sign

## Language I

This is the third in a four-course sequence in American Sign Language (ASL). The course
includes extensive work on receptive and expressive use of ASL. It emphasizes the grammatical structure of ASL, particularly its morphology, syntax, and semantics. In addition to class sessions, students will use written and videotape materials out of class. Prerequisite: ASL 102I or departmental permission.

Cr 4.

## ASL 202 I Intermediate American Sign <br> Language II <br> Continuation of ASL 201I. Prerequisite: ASL 201I or departmental permission. Cr 4.

## ASL 301 ASL Literature in ASL

This course, conducted in ASL, introduces Deaf and hearing students to American Sign Language literature, including introductions and face-to-face narratives, as well as literary genres such as the ASL epic poem, stream of consciousness poetry, allegory, and historical fiction. Structural characteristics of the ASL platform narrative and the written English essay are compared and contrasted. Prerequisite: ASL 202I or equivalent.

Cr 3.

## ASL 302 ASL Linguistics in ASL

This course focuses on advanced aspects of ASL grammar including complex co-reference, the scope of non-manual grammatical markers, quantification, complex classifier choice, verbs of motion and location, and complex aspectual marking and agreement. Students receive diagnostic feedback
throughout the course and are given specific remedial studies to pursue independently. Prerequisites: ASL 202I or LIN 305, and LIN 312 or 313. Cr 3.

## ASL 303 Deaf Art, Film, and Theatre in ASL

This course will examine Deaf culture as expressed in art, film, and theatre. Selections of Deaf art, film, and theatre from the 1900s to the present based on the Deaf experience will be discussed in the context of social and cultural history. The course will be taught in ASL. Prerequisites: ASL 202I and LIN 203 I.

Cr 3 .
ASL 401 Advanced American Sign Language I
This is the fifth in a sequence of courses in American Sign Language. This course focuses on advanced expressive skills, including explaining, rephrasing, demonstrating, and persuading. Grammatical principles and functions will be emphasized. Aspects of grammar that will be expanded include classifiers, conditional sentences, rhetorical questions, and relative clauses. Appropriate cultural behaviors and conversational regulators in ASL will continue to be an important part of class. Prerequisite: grade of at least B in ASL 202I or equivalent, and grade of "intermediate plus" on ASL CPI.

Cr 4.
ASL 402 Advanced American Sign Language II
Continuation of ASL 401. Prerequisite: ASL 401 or departmental permission.

Cr 4.

# Mathematics and Statistics 

## Programs and Requirements

Chair of the Department: Bhisham Gupta, 302 Payson Smith, Portland<br>Professors: El-Taha, Guay, Gupta; Associate Professors: Chabot, Irish, Peng, Valdés; Assistant Professors: Aboueissa, McCormick; Lecturers: Brunette, Moore, Woodman

The Department of Mathematics and Statistics offers a four-year program leading to a B.A. in mathematics. In addition to meeting Departmental requirements for a major, all students must also meet the requirements of the school or college involved, and the University Core curriculum requirements.

## I. Bachelor of Arts in Mathematics

The minimum number of credits (exclusive of the University's Core curriculum) required for a bachelor of arts in mathematics is 45 ( 30 in foundations and 15 in one of the three concentrations listed below).
A. Foundations

As a mathematics major, a student may select one of the three concentrations described below in section B. For each concentration all majors are required to complete successfully the foundations sequence as described in this section. Each student must have an accumulative grade point average of at least 2.0 in major courses before being considered for a baccalaureate degree in mathematics.

Foundations Sequence (Required of all majors in mathematics) (30 cr hrs)
MAT 152D Calculus A 4 cr

MAT 153 Calculus B 4 cr
MAT 252 Calculus C 4 cr
MAT 281 Introduction to Probability 3 cr
MAT 282 Statistical Inference 3 cr
MAT 290 Foundations of Mathematics 4 cr
MAT 295 Linear Algebra 4 cr
COS 160 Structured Problem Solving: Java 3 cr
COS 170 Structured Programming Laboratory 1 cr
B. Concentrations

Each mathematics major should choose one of the following concentrations. (15 credit hours)

1. Pure Mathematics Concentration

Mathematics majors intending to pursue graduate work in mathematics should consider this concentration, and they are urged to take Real Analysis, Abstract Algebra, Topology, and one year of French or German. Those intending to teach at the secondary level should choose this concentration.
a. Successful completion of three of the courses listed below:

| MAT | 352 | Real Analysis |
| :--- | :--- | :--- |
| MAT | 355 | Complex Analysis |
| MAT | 395 | Abstract Algebra |
| MAT | 490 | Topology |
| MAT | 370,371 | Non-Euclidean or College Geometry |

b. Successful completion of at least two additional mathematics courses numbered 260 or above.
2. Applied Mathematics/Operations Research Concentration

Those majors intending to enter industry or other applied fields should seriously consider this concentration. Majors who plan to prepare for the actuarial profession should be certain to include in their programs Numerical Analysis and the appropriate courses in the School of Business. Majors intending to pursue graduate work in applied mathematics are urged to take Real Analysis and Abstract Algebra.

| a. Successful completion of three of the courses listed below: |  |  |
| :--- | :--- | :--- |
| MAT | 350 | Differential Equations |
| MAT | 364 | Numerical Analysis |
| MAT | 366 | Deterministic Models in Operations Research |
| MAT | 383 | System Modeling and Simulation |
| MAT | 460 | Mathematical Modeling |

## MAT 461 Stochastic Models in Operations Research <br> MAT 492 Graph Theory and Combinatorics

b. Successful completion of at least two additional mathematics courses numbered 260 or above.
3. Statistics Concentration

This concentration is aimed at preparing the undergraduate to pursue a career as a statistician in government jobs or industrial jobs or to pursue a higher degree in statistics or allied fields. Majors intending to pursue graduate work in statistics are urged to take Real Analysis and Abstract Algebra.
a. Successful completion of three of the courses listed below:

| MAT | 383 | System Modeling and Simulation |
| :--- | :--- | :--- |
| MAT | 384 | Non-Parametric Methods |
| MAT | 386 | Sampling Techniques |
| MAT | 388 | Statistical Quality Control |
| MAT | 482 | Introduction to Time Series Analysis |
| MAT | 484 | Design and Analysis of Experiments |

b. Successful completion of at least two additional mathematics courses numbered 260 or above.

## II. Secondary Mathematics Education

This program is for students who want to become certified to teach 7-12 mathematics in Maine. The program has been designed jointly with the College of Education and Human Development. Interested students should see the secondary mathematics coordinator for full details of the program early in their time at USM.

The state of Maine has a number of non-academic requirements for teacher certification (fingerprinting and passing scores on Praxis I and II, for example); only academic requirements are listed below.

Successful completion of the following courses:
a) Mathematics Preparation

Mathematics major specializing in the pure math concentration, including the following required courses:

| MAT | 352 | Real Analysis or MAT 490 Topology |
| :--- | :--- | :--- |
| MAT | 371 | College Geometry |
| MAT | 395 | Abstract Algebra |

A natural science elective (This course will count as one of the two required upper-level mathematics electives and cannot be the same course as the natural science Core K course.)
b) Pre-candidacy Education Preparation

EDU 220/221 Middle School Community
MME 445 Teaching 7-12 Mathematics in Maine: Curriculum and Capstone Course
c) Professional Preparation
$\begin{array}{lll}\text { EDU } & \text { 220/221 } & \text { Middle School Community } \\ \text { EDU } & 527 & \text { Understanding and Teaching Diverse Learners }\end{array}$
EDU 514 Improving Teaching in Content Areas through Literacy
EDU 541 Seminar on Teaching, Learning, \& Assessment I
EDU 542 Seminar on Teaching, Learning, \& Assessment II
EDU 544 Applied Pedagogy
EDU 546 Professional Internship in Secondary Education
EDU 550 Instructional Strategies
EDU 552 Curriculum Design
MME 554 Secondary Mathematics Methods
SED 540 Nature and Needs of Learners Who Are Exceptional

## III. Certificate Program in Applied Statistics

The Department of Mathematics and Statistics offers a certificate program in applied statistics, designed for people in area businesses, industry, government, and education, as well as offering to the Department's own majors an opportunity for further recognition of their skills. It is helpful for students who want to pursue a master's program in statistics but who need first to fill in some advanced undergraduate work.

The requirements for the certificate are successful completion of:
MAT 281 and MAT 282 or the equivalent and five of the following courses:
MAT 384 Non-Parametric Methods
MAT 386 Sampling
MAT 388 Statistical Quality Control
MAT 461 Stochastic Models in O.R.
MAT 482 Introduction to Time Series
MAT 484 Design and Analysis of Experiments
MAT 498 Topics
Students must contact the Department chair about application to the program. The courses are offered during the late afternoon to make them more accessible to working people.

## IV. Minor in Mathematics

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 22.

An accumulative grade point average of at least 2.0 in these courses must be maintained, and successful completion of the following courses: MAT 152D; MAT 153; MAT 290; COS 160; COS 170; plus two additional MAT courses with second digit 5 or greater.

## V. Minor in Statistics

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor in statistics: 18.

Students must satisfy the following requirements with a GPA of at least 2.0:
a) MAT 152D and MAT 264
b) Either MAT 281 or MAT 380
c) Three additional courses from among MAT 282 , MAT 384 , MAT 386 , MAT 388, MAT 461, MAT 482, and MAT 484.

## VI. Master of Science in Statistics $4+1$ Program

The Department offers a $4+1$ master's program in statistics, where interested and qualified undergraduate students enrolled in various programs at USM can earn both an undergraduate degree and the M.S. degree in statistics in five years by carefully selecting their courses. The program offers several areas of concentration, such as applied statistics, applied mathematics, operations research, and biostatistics. For acceptance into the $4+1$ program, students must have at least junior standing and must have completed MAT 153, MAT 281, and MAT 282, or their equivalents, with a cumulative GPA of at least 2.75 . Students who enroll in the program after the junior year may not be able to complete both degrees in five years. For further information, refer to the graduate catalog or contact the Department.

It is expected that students will possess and be able to operate a basic scientific calculator if they enroll in mathematics courses.

## MAT 101B College Readiness Mathematics

This course reviews and reinforces the basic arithmetic and algebra skills and concepts needed for entry into the University's general education pathways. The course is based on student learning outcomes and uses mastery learning pedagogy. A grade of C - or better is needed to meet the University's mathematics readiness requirement. Prerequisites: MAT 009 or appropriate University placement test score.

Cr 4.

## MAT 105D Mathematics for Quantitative Decision Making

This is an introductory course in quantitative literacy that, through lecture and lab, emphasizes critical thinking, mathematical reasoning, and technological tools. Topics are selected to develop an awareness of the utility of mathematics in life and to instill an appreciation of the scope and nature of its decision making potential. Prerequisite: successful completion of the University's college readiness requirement in mathematics.

Cr 4.

## MAT 108 College Algebra

A more in-depth study of the topics introduced in MAT 101B. The emphasis will be on the study of functions (polynomial, rational, logarithmic, exponential) and their graphs. Additional topics may include matrices, sequences, counting techniques, and probability. Through the activity-based lab component, applications and modeling will be stressed. Prerequisite: Successful completion of the University's college readiness requirement in mathematics.

Cr 4.

## MAT 120D Introduction to Statistics

An introduction to probability and statistics through lecture and lab. Particular topics include random variables and their distributions, methods of descriptive statistics, estimation and hypothesis testing, regression, and correlation. Prerequisite: successful completion of the University's college readiness requirement in mathematics.

Cr 4.

## MAT 131 Number Systems for Elementary Teachers

This is the first course in a three-course sequence in mathematics recommended by the Committee on the Undergraduate Mathematics Program of the Mathematical Association of America for prospective primary and elementary teachers. Major emphasis is placed on an intuitive approach to the real number system and its subsystems. Prerequisite: successful completion of the University's college readiness requirement in mathematics.

Cr 3.

## MAT 140D Pre-Calculus Mathematics

A brief review of elementary algebra followed by a study of the algebraic, exponential, logarithmic, and trigonometric functions. Prerequisites: successful
completion of the University's college readiness requirement in mathematics and two years of high school algebra or MAT 108.

Cr 3 .

## MAT 145 Discrete Mathematics I

This course is an introduction to discrete mathematics necessary for a study of computer science. Topics will include a study of functions, sets, basic logic systems, and combinatorics. Prerequisite: MAT 108 or permission of instructor.

Cr 3.

## MAT 148D Applied Calculus

An introduction to limits and differential and integral calculus of algebraic and transcendental functions of one variable. Applications of derivatives and definite integrals with an emphasis on problems from the fields of technology will be introduced. Graphing calculators and computer technology will be used when appropriate. Prerequisite: MAT 140D. Cr 3.

## MAT 152D Calculus A

The first course in a three-semester sequence covering basic calculus of real variables, Calculus A introduces the concept of limit and applies it to the definition of derivative and integral of a function of one variable. The rules of differentiation and properties of the integral are emphasized, as well as applications of the derivative and integral. This course will usually include an introduction to the transcendental functions and some use of a computer algebra system. Prerequisite: successful completion of the University's college readiness requirement in mathematics and two years of high school algebra plus geometry and trigonometry or MAT 140D. Cr 4.

## MAT 153 Calculus B

The second course in a three-semester sequence covering basic calculus of real variables, Calculus B usually includes techniques of integration, indeterminate forms and L'Hopital's Rule, improper integrals, infinite series, conic sections, parametric equations, and polar coordinates. Prerequisite: MAT 152D.

Cr 4 .

## MAT 201 Teaching Seminar

A seminar intended to expose students to teaching introductory college mathematics courses. Students will be expected to participate in discussions concerning issues of pedagogy and classroom management. Some classes will be student-led. Cr 1.

## MAT 210D Business Statistics

This course investigates graphical and numerical methods of descriptive statistics; basic probability; discrete and continuous random variables and their distributions (binomial, hypergeometric, Poisson, uniform, exponential, and normal); sampling distributions; estimation; tests of hypotheses; and other selected topics. Applications will be chosen primarily from business. Prerequisite: MAT 108 (may be taken concurrently).

Cr 4.
MAT 220 Statistics for the Biological Sciences
This course treats basic statistical methods as
applied to the biological sciences. The topics emphasized are descriptive statistics, discrete and continuous distributions, statistical estimation, hypothesis testing procedures, chi-square methods (goodness of fit and two-way tables), analysis of variance, and simple and multiple regression. Students will use at least one computer-based statistical package. Prerequisite: MAT 152D. Cr 4.

## MAT 231 Algebra for Elementary Teachers

The second course in a three-course sequence in mathematics recommended by the Committee on the Undergraduate Mathematics Program of the Mathematical Association of America for prospective primary and elementary teachers. Emphasis is upon the properties of operations in several different algebraic systems. Equations are studied in finite systems as well as in conventional algebra. Prerequisite: MAT 131.

Cr 3.

## MAT 232 Geometry for Elementary Teachers

The third course in a three-course sequence in mathematics recommended by the Committee on the Undergraduate Mathematics Program of the Mathematical Association of America for prospective primary and elementary teachers. Emphasis is upon constructions, congruence, parallelism, and similarity. Direct and indirect methods of proof are studied, but the main approach is intuitive. Prerequisite: MAT 131.

Cr 3.

## MAT 242 Applied Problem Solving

This course is designed to introduce mathematical concepts and apply them to solving problems in various contexts. The focus will be on mathematical ideas required by Maine's Learning Results. Topics include sets, functions, logic, numeration systems, and number theory. Students will formulate key questions, gather and organize data, discover patterns and similarities, and interpret and communicate informaton. Offered only at Lewiston-Auburn College. Prerequisite: MAT 108 Cr 3.

## MAT 252 Calculus C

The third course in a three-semester sequence covering basic calculus of real variables, Calculus C includes vectors, curves and surfaces in space, multivariate calculus, and vector analysis. Prerequisite: MAT 153.

Cr 4 .

## MAT 260 Technological Tools for the Mathematical Sciences

MAT 260 is designed for students in mathematics and disciplines which utilize mathematics. Specific topics will include the computer algebra system Mathematica and the technical word-processing system TEX. Prerequisite: MAT $152 . \quad$ Cr 2.

## MAT 264 Statistical Software Packages

This course will use statistical packages such as SAS and MINITAB to introduce commonly used statistical methods in a non-theoretical manner. Particular topics might include summary measures,
calculation of probabilities associated with various discrete and continuous distributions, confidence intervals and hypothesis testing, analysis of variance, regression, and various non-parametric methods. Some of these methods will be used to analyze real data collected during previous faculty consulting projects. Prerequisite: MAT 212 or consent of Department chair.

Cr 2.

## MAT 281 Introduction to Probability

This course will cover basic concepts of probability, including discrete and continuous random variables and their distributions, moment generating functions, and bivariate random variables and their distributions. Some basic sampling distributions will also be discussed. Prerequisite: MAT 153. Cr 3.

## MAT 282 Statistical Inference

This course will examine various statistical methods and applications such as point and interval estimation; methods of estimation including methods of moments, maximum likelihood and least squares method; hypothesis testing; simple and multiple linear regression; and one-factor and two-factor ANOVA. Some statistical packages such as SAS or MINITAB will be used extensively throughout the course. Prerequisite: MAT 281 or permission of instructor.

Cr 3.

## MAT 290 Foundations of Mathematics

Selected topics in set theory, symbolic logic, and methods of proofs needed in more advanced mathematics courses. Prerequisite: consent of the Department chair.

Cr 4 .

## MAT 292 Theory of Numbers

Basic course in number theory, including such topics as divisibility properties of integers, prime numbers, congruences, multiplicative number theoretic functions, and continued fractions. Prerequisite: COS 280 or MAT 290.

Cr 3.

## MAT 295 Linear Algebra

An introduction to the theory of vector spaces and linear transformations. Particular topics will include the study of systems of linear equations, matrices, determinants, Euclidean vector spaces, inner product spaces, and theory of diagonalization. Students will use a computer algebra system for projects. Prerequisite: MAT 153.

Cr 4.

## MAT 350 Differential Equations

A study of various methods for solving ordinary differential equations, including series methods and Laplace transforms. The course also introduces systems of linear differential equations, Fourier series, and boundary value problems. Prerequisite: MAT 252.

Cr 4.

## MAT 352 Real Analysis

Limits, continuity, differentiation and integration of functions of one or more real variables, infinite series, uniform convergence, and other selected top-
ics. Prerequisites: MAT 252, and COS 280 or MAT 290.

Cr 3.

## MAT 355 Complex Analysis

A study of the complex number system and its applications: differentiation and integration of complex valued functions, the Cauchy integral theorem and formula, Taylor and Laurent series, singularities and residues, conformal mappings. Prerequisite: MAT 252, and COS 280 or MAT 290. Cr 3.

## MAT 364 Numerical Analysis

A study of the theory and application of computational algorithms for interpolation, equation solving, matrix methods, integration; error analysis. Prerequisites: MAT 252, MAT 295, and COS 160; or permission of instructor.

Cr 3.

## MAT 366 Deterministic Models in Operations

## Research

Formulation and analysis of mathematical models for the optimal solution of decision making problems under certainty. Linear programming; the simplex method, duality and sensitivity analysis. Network analysis: shortest paths, minimal spanning tree, network flows. Introduction to non-linear optimization: convex programming, Kuhn-Tucker conditions. Applications to pricing, allocation, production planning, transportation and scheduling problems. Prerequisites: MAT 153 and MAT 295. Cr 3.

## MAT 370 Non-Euclidean Geometry

A development of one or more of the non-Euclidean geometries. Prerequisite: COS 280 or MAT 290.

Cr 3.

## MAT 371 College Geometry

Selected topics from Euclidean geometry. Prerequisite: COS 280 or MAT 290.

## MAT 380 Probability and Statistics

This course explores concepts and techniques of collecting and analyzing statistical data, examines some discrete and continuous probability models, and introduces statistical inference, specifically, hypothesis testing and confidence interval construction. Not for mathematics major credit. Prerequisite: MAT 153 or COS 152.

Cr 3.

## MAT 383 System Modeling and Simulation

This course is designed to introduce the fundamental elements of successful system modeling using simulation. Applications to computer, communications, and inventory systems, as well as to traditional engineering problems, will be discussed. Topics include model validation and verification, input/output analysis, and the generation of various types of random data. Students are required to conduct a simulation project in their area of interest using a simulation language. Prerequisite: MAT 281 or MAT 380.

Cr 3.

## MAT 384 Non-Parametric Methods

Tests of goodness of fit, Pearson's Chi-square, test
for multinomial populations, contingency tables, sign tests based on ranks, media test, MannWhitney Test, Wilcoxon Test, Spearman's Rank Correlation Coefficient, order statistics. Prerequisite: MAT 282 or MAT $380 . \quad$ Cr 3.

## MAT 386 Sampling Techniques

Sample random sampling, stratified random sampling, sampling for proportions, estimation of sample size, systematic sampling, multistage sampling, regression and ratio estimates, non-sampling error. Prerequisite: MAT 282 or MAT $380 . \quad$ Cr 3.

## MAT 388 Statistical Quality Control

Some aspects of quality specifications and tolerances, control charts for attributes and variables, certain inspection plans, plans by attributes and by variables, simple, double, and sequential sampling plans. Prerequisite: MAT 282 or MAT 380. Cr 3.

## MAT 395 Abstract Algebra

Algebraic structures, such as groups, rings, integral domains, and fields. Prerequisite: COS 280 or MAT 290.

Cr 3.

## MAT 460 Mathematical Modeling

An introduction to the process of formulating problems in mathematical terms, solving the resulting mathematical model and interpreting the results and evaluating the solutions. Examples will be chosen from the behavioral, biological, and physical sciences. Prerequisites: junior or senior standing, some elementary calculus including differentiation and integration, elementary probability, and some computer programming experience.

Cr 3.

## MAT 461 Stochastic Models in Operations Research

This course applies probabilistic analysis to such nondeterministic models as queueing models, inventory control models, and reliability models. Additional topics include simulation, elements of dynamic programming, and Markov decision analysis. Prerequisite: MAT 281 or MAT 380 , or permission of instructor.

Cr 3.

## MAT 482 Introduction to Time Series Analysis

The objectives and simple descriptive techniques of time series analysis are presented using probability models, estimation in the time domain, forecasting, Box-Jenkins methodology, and spectral analysis. Prerequisite: MAT 282 or MAT $380 . \quad$ Cr 3.

## MAT 484 Design and Analysis of Experiments

This course is intended to acquaint students with such standard designs as one-way, two-way, and higher-way layouts, Latin-square and orthogonal Latinsquare designs, BIB designs, Youdeen square designs, random effects and mixed effect models, nested designs, and split-plot designs. Prerequisites: MAT 295 and either MAT 282 or MAT 380, or permission of instructor.

Cr 3.

MAT 485 Introduction to Applied Regression This course covers simple and multiple linear regression analysis. Topics include model diagnostics using residual analysis, model selection, and model interpretation. The course emphasizes analyzing real-life data using statistical software. Prerequisite: MAT 282.

Cr 3.

## MAT 490 Topology

An introduction to fundamental concepts in topology, including topological spaces, mappings, convergence, separation and countability, compactness, connectedness, metrization, and other selected topics. Prerequisites: MAT 252 and COS 280 or MAT 290 . Cr 3.

MAT 492 Graph Theory and Combinatorics
This course is designed to acquaint students with
some fundamental concepts and results of graph theory and combinatorial mathematics. Applications will be made to the behavioral, managerial, computer and social sciences. Prerequisite: COS 280 or MAT 290.

Cr 3 .
MAT 497 Independent Study in Mathematics
An opportunity for juniors and seniors who have demonstrated critical and analytical capability to pursue a project independently, charting a course and exploring an area of interest within their major field. Prerequisites: junior or senior standing, permission of the instructor, and permission of the Department chair. Cr 1-3.

MAT 498 Topics
Selected topics in advanced mathematics. Prerequisite: permission of instructor. Cr 3.
slow, average, and advanced pupil, with the use of instructional media. Prerequisites: EDU 210, HRD 200J, and 30 credit hours toward a mathematics major, or permission of the instructor. Cr 3.

# Modern and Classical Languages and Literatures 

Chair of the Department: Jeannine Uzzi, 55 Exeter Street, Portland<br>Professors: Aicher, Rosenthal; Associate Professors: diBenedetto, Erickson, Uzzi, Fouchereaux, Suscavage; Assistant Professor: Gulielmetti; Professors Emeritae: Crochet, Hinckley

A foreign language major offers a uniquely rich and diverse humanities background. The study of languages sensitizes us to other cultures and the relativity of values; it frees us from the confines of monolingualism and provincialism; it increases our understanding of and competence in our native language; and, most important, it is an inquiry into language as language: the structure, system, code by which we interpret the world to ourselves and others. Through in-depth study of literature we develop skills of close reading and literary analysis, and in all our courses we hone our writing skills.

A foreign language is also a valuable and marketable skill in many professions, especially international relations and trade, government service, journalism, travel, social services, the arts, and teaching.

## Programs and Requirements

The Department offers a major in French and broader, interdepartmental majors in foreign languages, classics, French studies, German studies, Hispanic studies, and Russian studies. Also classics, French, German, Russian, and Spanish minors are available which augment other majors in the College of Arts and Sciences.

The Department also offers a number of courses in English translation requiring no knowledge of a foreign language and open to any student interested in foreign or classical literature, civilization, and film. These courses are numbered 281-299. Literature courses in this category may be credited toward a major or a minor in the Department if the readings, exams, and papers are done in the target language.

Independent study courses, numbered 470, are available to qualified students with the permission of the instructor and the Department chair.

## English for Speakers of Other Languages

Also offered through the Department are higher level ESOL (English for Speakers of Other Languages) courses for students whose first language is not English. These courses focus on the linguistic skills necessary for academic work at a university as well as adjustment to and knowledge of American culture. There is no major or minor in this program.

## English Language Bridge Program

Students applying to the University who meet regular admission requirements but whose TOEFL scores fall below the required level may be eligible for admission to the University through the English Language Bridge Program offered through the ESOL Department.

For further information on the ESOL program contact Bart Weyand, program director, 101 Payson Smith Hall, Portland.

## Policies

Beginning courses (101-102) are for students who have never studied the language. Courses numbered 103 are a review of this beginner's level. Intermediate level courses (201-202 for modern languages, 251-252 for the ancient languages) are for students with two successful years of high school language study. Those whose background does not fit any of these categories, especially Franco-Americans and students with Hispanic, German, or Italian heritage, should consult an instructor in the language before registering. Courses numbered 105-206 give students a reading proficiency in French or German for research in their field, graduate school language requirements, or cultural enjoyment. Courses numbered 107 and 207 are intensive, 8credit language courses offered during the summer only; 107 and 207 cover the same material as 101-102 and 201-202, respectively. Students who have received credit for 102 or 202 cannot also receive credit for 107 and 207, respectively. Partial credit may be awarded if the student has received credit for 101 or 201 only.

The Department grants credit in French, German, Greek, Latin, and Spanish to an enrolled student who presents evidence of competency in one of those languages by completing the appropriate Advanced Placement Examination of the College Entrance Examination Board. For more details, contact the chair of the Department.

All majors, including group contract majors, must achieve grades of B or better for at least 12 credits in their major courses. No grade of D will count toward fulfillment of major. A student who has received a grade of B- or above in a 300-level language class may not take 101, 102I, or 201I for credit.

Students are also urged to get extra practice in French, German, Italian, Russian, Spanish, and Japanese by participating in informal conversation tables sponsored by the Department. Tutoring is available, often at no cost to the student. For information, see the Department assistant.

State of Maine certification for foreign language teachers requires 30 credits at the level 300 and above for the first language and 18 credits at the level 300 and above for the second language.

All major programs in the Department of Modern and Classical Languages and Literatures require that the student fulfill the requirements of the Core curriculum.

## Study Abroad

All students, regardless of major, are eligible to study in a foreign country, normally after studying the language of that country for two years on the college level and usually in their junior year. For the study of German, USM has a study abroad program at the University of Salzburg in Austria. For French, the University of Maine System has a formal program associated with the University of Le Mans in France. USM has an exchange program with l'Université Laval in Quebec, l'Université de Bretagne Occidentale in Brest, France, and a summer program in Angers, La Rochelle, France. For Russian, students have the possibility of going to St. Petersburg, Moscow, or Kharkov. For Spanish, there is a Summer Session program in Santiago de Compostela, Spain, as well as other options available in Latin America and Spain. Students interested in study abroad should consult with the chair of the Department or with the Office of International Exchange to explore these and other possibilities.

## Teacher Certification Program in German, Latin, and Spanish

This program, designed in collaboration with the Department of Teacher Education, is for students who want to become certified to teach K-12 German, Latin, or Spanish. Upon completion of this 4.5-year program, students will be fully certified to teach, in addition to having a B.A. from the College of Arts and Sciences, with a major in one of these languages. After completing the program and teaching for a year, students may complete an additional 13 credits and earn a master of science in teaching (MTL). For full details, interested students should contact a language faculty member during their first year of study at USM.

Requirements:

1. Completion of the major in German, Latin, or Spanish
2. Certain State of Maine requirements (such as Praxis test and finger-printing)
3. The following courses in the College of Education

| HRD | 200J | Human Growth \& Development |
| :--- | :--- | :--- |
| CPI | 211 I | Culture \& Community |
| EDU | 220 | Middle School Community |
| EDU | 320 | Applied Skills for Teaching \& Learning |
| EDU | 390 | Portfolio Development |
| SED | 540 | Exceptionality |
| EDU | 514 | Reading/Writing |
| EDU | 550 | Instructional Strategies |
| EDU | $5 x x$ | Curriculum Design |
| EDU | 541 | Seminar I |
| EDU | 542 | Seminar II |
| EDU | 554 | Foreign Language Methods |
| EDU | 613 | Internship |

## Bachelor of Arts in French

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 38 .
FRE 303 Thème et Version (3)

FRE 305 French Phonetics (3)
FRE 306 Third Year French I (3)
FRE 307 Third Year French II (3)
FRE 308 Third Year French Conversation I (2)
FRE 309 Third Year French Conversation II (2)
Civilization (3 credits)
FRE 291I French Civilization: An Historical Approach (3)
or
FRE 292I Topics in Contemporary Francophone Civilization (3) Literature ( 15 credits)
FRE $331 \quad$ Workshop in French Literary Analysis (3)
FRE 332 Introduction to French Literature (3)
FRE 367 Genres and Periods in French Literature (3)
FRE 369 Topics and Themes in French Literature (3)
FRE 467 Seminar in Genres and Periods in French Literature (3)
or
FRE 469 Seminar in Topics and Themes in French Literature (3)
Electives (4 credits)
FRE 291I or FRE 292I
FRE 300 French Practicum (for a maximum of 2 credits)
FRE 367, 369, 467, 469 (when repeated for credit under different topic)
FRE 399 courses when offered
Summer and junior year studies in France or French Canada are encouraged and acknowledged by transfer of credits.

All majors already engaged in studies of French literature should maintain an active effort to reach fluency in speaking French through constant practice, use of the language laboratory, and participation in informal conversation tables. They are expected to have reached proficiency in speaking and writing French before their graduation.

Each student's progress will be reviewed periodically by the French faculty. All majors must achieve at least 12 credits of B or better grades in their major courses. No grade of D will count toward fulfillment of a French major.

## Group Contract in Foreign Languages

The Self-Designed Major Program of the College of Arts and Sciences provides students with a flexible opportunity to tailor their major to their interests and needs in foreign language study. The following group contract options are available within the Self-Designed Major Program:

Classics
Foreign Languages
French Studies
German Studies
Hispanic Studies
Russian Studies

Please refer to the section on interdepartmental majors of this catalog or contact the chair of the Department of Modern and Classical Languages and Literatures for additional information.

## Minors

Because the knowledge of a foreign language, or languages, or language study areas, is valuable to all majors in other CAS disciplines, the Department offers minor programs in Classical Languages, French, German, The Greek World, Latin, The Roman World, Russian, and Spanish. Requirements for the respective minors are as follows:

Classical Languages
Two semesters of Latin; ancient Greek 101 and 102; one additional semester of Latin or ancient Greek; CLA 410

French Minor
Seventeen credit hours of FRE 306, 307, either 308 or 309, 331, 332, 367 or 369 or 291I or 292I
German Minor
Nine credit hours selected from GER 321, 322, 351H, 352H, 281H The Greek World

Ancient Greek $101 \& 102$ plus 12 credit hours selected from the following: CLA 283H, 384H, 285I, 291I, HTY 303, PHI 310, GEY 110K, ENG 315
Latin
LAT 251, 252, 310 plus one of the following: CLA 292I, HTY 304, LAT 470 The Roman World

LAT 101 \& 102 plus 12 credit hours selected from the following: CLA 283H, 384H, 285I, 292I, HTY 304, ENG 315
Russian Minor
Nine credit hours selected from RUS 281H or 291I or 293G; 301, 302, 470
Spanish Minor
SPA $300,304,305,332,351 \mathrm{H}$, and 352 H or 450

## CLA 171E Etymology for Everyone

Etymology is the study of word origins and derivations. This course focuses on the learning of the Latin and Greek roots of English as a key to the improvement of English vocabulary. No prior knowledge of Latin or Greek is necessary, nor are there any other prerequisites.

Cr 3.
CLA 270 Homer's Odyssey and Joyce's Ulysses A close reading of the Odyssey and Ulysses, emphasizing the continuous parallels that tie Joyce's epic of Dublin to Homer's ancient song. Topics of comparison include the hero, family romance, and narrative strategies.

Cr 3.
CLA 283H The Epic Hero in Ancient Literature Intensive readings in English translations of Gilgamesh, Iliad, Odyssey, Argonautica, Aeneid; discussion, papers.

Cr 3

## CLA 285I Classical Mythology

Examination of the myths of Greece and Rome from a variety of perspectives: anthropological, etiological, historical, psychoanalytical, structural. Cr 3 .

## CLA 291I The Golden Age of Greece

The literature, history, politics, philosophy, art, and architecture of the fifth century B.C. with particular attention to the achievements of Athens. Lectures, discussion, papers, slides, films.

Cr 3.

## CLA 292I Rome, from Republic to Empire

The literature, history, politics, philosophy, art, and architecture of Rome in the first century B.C. Lectures, discussion, papers, slides, films. Cr 3.

## CLA 321 Art, Architecture, and Archeology of the Ancient World

This class explores the art, architecture, and archaeology of ancient Greece and Rome. Areas of investigation may include body image/ideal, architecture and politics, art and power, gender and sexuality, and mythology. Students will be expected to respond in written form to secondary literatures. This course is equivalent to ARH 321. Prerequisites: ENG 100; one CLA course or one ARH course, or permission of instructor.

Cr 3.

## CLA 384H What Would Antigone Do? Tragic Questions, Modern Responses

Exploration of ancient and modern ethical dilemmas via Greek tragedy (in English translation) and ancient and modern responses to it. Readings will be selected from Aeschylus, Sophocles, Euripides, Aristophanes, Plato, Aristotle, Nietzsche, Martha Nussbaum, and modern dramatists. Prerequisites: ENG 100/101/104C or HON 100 plus one of the following courses in ancient Greek culture: CLA 283H, CLA 291I, GRE 251, HON 101, HTY 101I, HTY 303, PHI 310I, or permission of instructor. Cr. 3.

## CLA 410 Antiquity and Modernity: Capstone Experience in Classics

This course explores current issues in the field of classics and the impact of the classical tradition on contemporary culture. It includes selected readings of Latin and/or Greek in dialogue with modern texts, projects in the art of translation, and a thesis project. Prerequisites: LAT 251 or GRE 251 or equivalent. LAT 251 or GRE 251 may be taken concurrently with the Capstone. Not open to first or second year students.

## FRE 283H Contemporary French Thinkers

Readings and discussion of recent works of French literature selected for their philosophical and ethical importance: Saint-Exupery, Sartre, Camus, de Beauvoir, Teilhard de Chardin and others. No knowledge of French is necessary. Cr 3.

## FRE 291I French Civilization: An Historical Approach

Aspects of the society, institutions, arts, literature, and religion of France, from the origins to the end of the 19th century. No French is spoken in the classroom.

Cr 3.

## FRE 292I Topics in Contemporary Francophone Civilization

Institutions, education, society, economy, politics of France. No French is spoken in the classroom. Cr 3.

## FRE 293 French/Francophone Cinema

This course introduces students to movements and themes which have marked French/Francophone cinema and acquaints students with aspects of French/Francophone cultures through representative films from the French-speaking world. Prerequisites: ENG 100/104 or permission of instructor.

Cr 3.

## GER 281H The German Novelle

The study of the genre of the novelle and its development through the major literary movements from the early 19th century to the present. Authors read vary, but normally include Goethe, Tieck, E.T.A. Hoffmann, Kleist, C.F. Meyer, Storm, Musil and Mann. No knowledge of German is necessary.Cr 3.

## RUS 281H Russian Literature in English

## Translation

The content of this course will vary. Topics will include: Russian literature of the 19th century, Russian literature of the 20th century, recent Soviet literature, Russian theater and cinema. The readings for RUS 281 H and the discussions will be in English.

Cr 3.

## RUS 291I Russian and Soviet Culture and Civilization

A historical view of Russian and Soviet society and culture from the origins of the East Slavic settlements to the present day. No Russian is required. Cr 3.

RUS 293G Survey of Russian Cinema
A chronological overview of the Russian cinema from its beginnings before 1917 to the present, including the work of major directors: Eisenstein, Tarkovsky, Shepitko, and Mikhalkov. Films will be presented in a historical and political context provided by readings and lectures. Prerequisite: ENG 100 C or equivalent.

Cr 3 .

## Classics: Greek and Latin

## GRE 101 Beginning Greek I

Fundamentals of classical Greek. Emphasis upon acquisition of reading knowledge. Cr 4 .

GRE 102 Beginning Greek II
Prerequisite: GRE 101 or equivalent.
Cr 4 .

## GRE 251 Introduction to Greek Literature I

A study of Plato's Apology, Crito and selections from the Phaedo. Prerequisite: GRE 102 or equivalent.

Cr 3.

GRE 252 Introduction to Greek Literature II
A study of selected books from Homer's Iliad or Odyssey. Prerequisite: GRE $251 . \quad$ Cr 3.

## GRE 310 Seminar in Greek Literature

Readings in Greek prose and poetry; a different author will be read each semester. Translation, supplementary reading, paper. Prerequisite: GRE 252 . Cr 3.

## French

## FRE 101 Beginning French I

This beginner's course in French stresses the acquisition of cultural information and introduces the student to the four skills of language learning: listening comprehension, speaking, reading, and writing. The course requires coordinated work in a variety of audio-visual media.

Cr 4.

## FRE 102I Beginning French II

Continuation of FRE 101. Prerequisite: FRE 101 or equivalent. Cr 4 .

## FRE 103 Review of Elementary French

Elementary French for students with some previous study of the language who feel the need for a refresher course before entering FRE 201I. Cr 3.

## FRE 105 Reading French I

Beginner's course in French aiming exclusively at a reading knowledge of the language. No French spoken. Recommended also as preparation for language tests required by graduate schools. Cr 3 .

## FRE 107I Intensive Beginning French

An intensive course for the beginning student, covering a full year's work at the college level to prepare the student for the intermediate level of college French. Emphasis is placed upon the four skills of

SPA 270 I The Culture and Civilization of Spain
This course examines aspects of the society, institutions, art, literature, and religion of Spain from its origins to the present. No knowledge of Spanish is necessary.

Cr 3 .

## SPA 281H Masterpieces of Spanish American and Brazilian Literature

This is a study of contemporary literature representative of current trends in Spanish America and Brazil.

GRE 470 Independent Study

## LAT 101 Beginning Latin I

Fundamentals of classical Latin. Emphasis upon acquisition of reading knowledge. Cr 4.

LAT 102 Beginning Latin II
Prerequisite: LAT 101 or equivalent. Cr 4.

## LAT 251 Introduction to Latin Literature I

Selected readings from masters of Latin prose and poetry. Prerequisite: LAT 102 or equivalent. Cr 3.

## LAT 252 Introduction to Latin Literature II

Continuation of LAT 251.
Cr 3.

## LAT 310 Seminar in Latin Literature

Readings in Latin prose and poetry; a different author will be read each semester. Translation, supplementary reading paper. Prerequisite: LAT 252 . Cr 3.

## LAT 470 Independent Study

language learning: speaking, understanding, reading and writing along with an introduction to contemporary culture and civilization. The course requires coordinated work in a variety of audio-visual media. Offered during the summer only.

Cr 8.

## FRE 201I Intermediate French I

Review of grammatical structures with further development of listening comprehension, speaking, reading and writing skills. The emphasis will be on understanding cultures and contemporary life of French-speaking countries through reading and discussion. The course requires coordinated work in a variety of audio-visual media. Prerequisites: FRE 102I, or FRE 103, or FRE 107I; two years of high school French or the equivalent or permission of instructor.

Cr 4.

## FRE 202I Intermediate French II

Continuation of FRE 201I. Prerequisite: FRE 201I or the equivalent or instructor's permission. Cr 4.

## FRE 206 Reading French II

Further practice of the skill acquired in FRE 105 through an accelerated reading of books on various topics (fiction, history, science, etc.). Prerequisites: FRE 105, 102I, 103, or instructor's permission. Cr 3.

## FRE 207I Intensive Intermediate French

This is an intensive course for the intermediate student covering a full year's work at the college level. Emphasis is placed on the development of listening, comprehension, speaking, reading, and writing, along with an introduction to contemporary culture and civilization. The course requires additional coordinated work in a variety of audio-visual media. Offered during the summer only. Prerequisite: FRE 102I or FRE 107I or permission of instructor. Cr 8.

## FRE 300 French/Francophone Practicum

In this course students participate in a number of activities in the French language, enabling them to develop and strengthen their ability in speaking and comprehending. They also gain an awareness and appreciation of various cultures of the Frenchspeaking world. Since immersion content will vary, this course may be repeated, to a total of 3 credits. Prerequisites: FRE 202I or equivalent, or permission of instructor.

Cr 1 or 0 .

## FRE 303 Thème et Version

In this course, students will learn techniques and the art of translation through an analysis of the major linguistic and cultural differences between French and English. Translations will be done from French into English and from English into French. Prerequisite: FRE 202I or 207I, or permission.Cr 3.

## FRE 305 French Phonetics

A formal study of the French sound system and an initiation into phonetic transcription with practical and remedial work in pronunciation. Prerequisite: FRE 202I or equivalent.

Cr 3.

## FRE 306 Third Year French I

Advanced study of the French language with emphasis on proficiency in grammar, writing, and vocabulary development. Prerequisite: FRE 202I or equivalent or instructor's permission.

## FRE 307 Third Year French II

Continuation of FRE 306. Prerequisite: FRE 306 or equivalent or instructor's permission. Cr 3.

## FRE 308 Third Year French Conversation I

This course is designed to familiarize students with basic French conversation. This class will be conducted solely in the target language, thus enabling students to develop their proficiency skills in French. Class discussions will be based on various authentic materials. Prerequisite: FRE 202I or equivalent or instructor's permission.

## FRE 309 Third Year French Conversation II

Continuation of French 308. Prerequisite: FRE 308 or equivalent or instructor's permission. Cr 2.

## FRE 330 Art of Writing

This course will be devoted to developing the student's ability to write clear, nuanced, and well-artic-
ulated French in a variety of modes and formats. We will study and emulate various types of texts in order to develop a sense of style in French. The focus will be on writing strategies, the organization of ideas, and a continued appreciation for words and language use. This course continues the work of FRE 306 and 307. Prerequisites: FRE 307 and 309, or permission of instructor.

Cr 3 .

## FRE 331 Workshop in French Literary Analysis

Fundamental techniques of French literary analysis, close reading, and critical interpretation. All readings, discussions and papers will be conducted in French. Prerequisite: FRE 307 and 309, or permission.

Cr 3 .

## FRE 332 Introduction to French Literature

An historical survey of the major writers and literary periods from the beginning of French literature to the twentieth century. Prerequisite: FRE 331 or equivalent.

Cr 3.

## FRE 367 Genres and Periods in French

## Literature

Each course in this group "Genres and Periods" deals with a specific literary genre (novel, poetry, theatre) and/or time period (Medieval, Renaissance, 17th, 18th, 19th, or 20th century). Sample topics: 19th century French novel, 17th century French theatre, 20th century French fiction. This course may be repeated for credit provided that the topic is different. Prerequisite: FRE 331 or equivalent. Cr 3.

## FRE 369 Topics and Themes in French Literature

Each course in this group "Topics and Themes" deals with a subject and/or a theme in French or Francophone literature. This course may be repeated for credit provided the topic is different. Prerequisite: FRE 331 or equivalent.

Cr 3.

## FRE 467 Genres and Periods in French Literature

An advanced course in the group "Genres and Periods" which deals with a specific literary genre (novel, poetry, theatre) and/or time period (Medieval, Renaissance, 17th, 18th, 19th, or 20th century). Sample topics: 19th century French novel, 17th century French theatre, 20th century French fiction. This course may be repeated for credit provided the topic is different. Prerequisite: FRE 367 or 369 or equivalent.

Cr 3.

## FRE 469 Topics and Themes in French Literature

An advanced course in the group "Topics and Themes" which deals with a major subject and/or theme in French or Francophone literature. Prerequisite: FRE 367 or 369 or equivalent. Cr 3.

FRE 470 Independent Study

## GER 101 Beginning German I

This beginner's course in German stresses the acquisition of cultural information and introduces the student to the four skills of language learning: listening comprehension, speaking, reading, and writing. In conjunction with class meetings, additional work is required using language lab resources. Opportunity for practice with videotapes and computer exercises is available.

Cr 5.

## GER 102I Beginning German II

Continuation of GER 101. Prerequisite: GER 101 or equivalent.

## GER 105 Reading German I

Elementary course in German aiming exclusively at a reading knowledge of the language. No German spoken. Not offered every year.

## GER 107I Intensive Beginning German and GER 107 Lab

An intensive course for the beginning student, covering a full year's work at the college level to prepare the student for the intermediate level of college German. Emphasis is placed upon the four skills of language learning: speaking, understanding, reading, and writing, along with an introduction to contemporary culture and civilization. Daily practice in the language lab is required (for two additional credits). Offered during the summer only.

Cr 6. (With lab, Cr 8.)

## GER 201I Intermediate German I

Review of grammar. Further development of listening comprehension, speaking and reading skills. Emphasis on understanding German culture and contemporary life through reading and discussion of short stories, articles and essays. Students are encouraged to also register for laboratory practice (one more credit). Prerequisite: GER 102I, two years of high school German or the equivalent. Cr 4.

## Russian

## RUS 101 Beginning Russian I

A course for beginners which includes the four skills of listening comprehension, speaking, writing, and reading. Students are also provided with cultural information needed to use the language correctly. The course emphasizes the acquisition of real Russian by using authentic materials. Cr 5 .

## RUS 102I Beginning Russian II

Continuation of RUS 101. Prerequisite: RUS 101 or equivalent.

Cr 5.

## RUS 201I Intermediate Russian I

This course further develops the four skills of listening comprehension, speaking, writing, and reading. The course provides students with the cultural information they need to use the language correctly. The aim of the course is for students to acquire "real" Russian and be able to deal with authentic materials. Prerequisite: RUS 102I or equivalent. Cr 4 .

GER 2021 Intermediate German II
Continuation of GER 201I. Prerequisite: GER 201I or the equivalent.

## GER 206 Reading German II

Further practice of the reading skill acquired in GER 105. Recommended also as preparation for language tests required by graduate schools. Prerequisites: GER 105 , 102 I or instructor's permission. Not offered every year.

Cr 3.

## GER 321 Composition and Conversation in German I

Systematic training in correct pronunciation and usage, and in vocabulary building, with written and oral practice. Prerequisite: GER 202I or equivalent.

Cr 3.
GER 322 Composition and Conversation in German II
Continuation of GER 321. Reading and discussion of historical, journalistic, and literary material covering life in Germany from World War I to the present. Prerequisite: GER 321 or equivalent. Cr 3.

GER 351H Introduction to German Literature I Reading and discussion of selected works representing the major literary movements from Enlightenment to Realism. Readings are in German; class discussions and exams are in English. Prerequisite: GER 202I or GER 206 or an equivalent reading ability of German.

Cr 3.
GER 352H Introduction to German Literature II Reading and discussion of selected works representing the major literary movements from Naturalism to the present. Readings are in German; class discussions and exams are in English. Prerequisite: GER 202I or GER 206 or an equivalent reading ability of German.

Cr 3.

## GER 470 Independent Study

## RUS 202I Intermediate Russian II

Continuation of RUS 201. Prerequisite: RUS 201 or the equivalent.

Cr 4.

## RUS 301 Advanced Intermediate Russian I

This course involves intermediate-level work in the four skills of listening comprehension, speaking, writing, and reading that promotes the student toward an advanced level. The course emphasizes the development of the student's active and passive vocabularies and deeper knowledge of Russian culture. The course is taught primarily in Russian. Prerequisite: RUS 202I or equivalent.

Cr 3.

## RUS 302 Advanced Intermediate Russian II

This is the transitional course in the language acquisition sequence. Students who complete the course satisfactorily are ready to begin advanced-level work in all four skill areas. The class is conducted entirely in Russian. Prerequisite: RUS 301 or equivalent. Cr 3.

## RUS 321 Advanced Russian

Students will read a variety of authentic texts ranging from newspapers to encyclopedias to literary works and will write extended essays, discuss ideas and argue points of view on a variety of subjects. They are also required to listen to or watch real Russian media. Students may also work on the art of translation. Prerequisite: RUS 302 or equivalent.

Cr 3.

## Spanish

## SPA 101 Beginning Spanish I

A beginning course in Spanish in the four skills of language learning: listening comprehension, speaking, reading, and writing. In addition, audio-visual work is required.

Cr 4.

## SPA 102I Beginning Spanish II

Continuation of SPA 101. Prerequisite: SPA 101 or equivalent.

Cr 4.

## SPA 107I Intensive Beginning Spanish

An interactive intensive language course in which the skills of listening, reading, speaking, and writing will be emphasized and evaluated. Students will participate in daily lab activities. This course can be used as a substitute for a first-year language experience or as a beginning refresher course. Offered during the summer only.

Cr 8.

## SPA 201I Intermediate Spanish I

Review of grammatical structures. Further development of listening comprehension, speaking, reading and writing skills. Continued emphasis on understanding of Hispanic culture and civilization through reading and discussion of literary and historical texts as well as frequent reference to contemporary customs and events. Students are encouraged to also register for laboratory practice. Prerequisite: SPA 102 or SPA 107, two years of high school Spanish or the equivalent.

## SPA 202I Intermediate Spanish II

Continuation of SPA 201I. Prerequisite: SPA 201I or the equivalent.

## SPA 207I Intensive Intermediate Spanish

An interactive intensive language course in which the skills of listening, reading, speaking, and writing will be emphasized and evaluated. Students will participate in daily lab activities. This course can be used as a refresher course and can fulfill the requirements for an intermediate proficiency course. Prerequisite: SPA 102I,SPA 107, or equivalent. Offered during the summer only. Cr 8.

## SPA 300 Topics in Conversation

In this course students will build their listening, speaking, reading, and writing abilities in the target language. Due to its strong emphasis on speaking, this

RUS 351 Seminar in Russian Literature
Topics for this seminar will be chosen from the following: historical surveys, genre surveys in the novel, short story, drama, and Russian women writers. All coursework is in Russian. The emphasis is on language and style. Prerequisites: RUS 281H and RUS 321.

Cr 3.

## RUS 470 Independent Study

course will focus on developing the ability to think and speak in Spanish while learning about Hispanic cultures. Prerequisite: SPA 202I or permission. Cr 3.

## SPA 304 Advanced Conversation and Composition

This course focuses on listening, reading, speaking, and writing, with an emphasis on oral and written communication and critical thinking. Activities are communicative as well as cooperative with a focus on learning in context. Taught in Spanish. Prerequisite: SPA 300 or equivalent. Cr. 3

## SPA 305 Introduction to Hispanic Literature

A comprehensive introduction to literary analysis of Hispanic texts with an emphasis on acquiring the concepts and technical vocabulary needed to describe and discuss literary issues effectively. Taught in Spanish. Prerequisite: SPA 304 or equivalent.

Cr. 3

## SPA 332 Advanced Grammar and Stylistics

This course involves systematic training in grammatical and compositional fluency and accuracy. Translation techniques will also be a component of the course. Prerequisite: SPA 305 or equivalent. Cr 3.

## SPA 351H Readings in Contemporary Spanish Literature

An introduction to the literature of contemporary Spain. All discussions and readings will be in Spanish. SPA 305 must be taken prior to or concurrent with SPA 351 H . Prerequisite: SPA 305 or permission of instructor.

Cr 3.

## SPA 352H Readings in Modern Latin American

 LiteratureAn introduction to the literature of modern Latin America. All discussions and readings will be in Spanish. SPA 305 must be taken prior to or concurrent with SPA 352. Prerequisite: SPA 305. Cr 3.

SPA 450 Topics in Hispanic Language and Literature
An advanced seminar in Hispanic language, culture, and literature. Prerequisite: SPA 332, SPA 351 H or SPA 352 H , or permission of the instructor. Cr 3 .

SPA 470 Independent Study

## English for Speakers of Other Languages ESL 006 Intensive Grammar

This course is a part of the Intensive English Language program (IELP). It focuses on building a stronger foundation in the grammatical skills necessary for more natural and accurate English, both oral and written. Through a series of grammatical exercises, meaningful drilling, and analysis of the structure of the English language, students will become more adept at producing a wider variety of language with a higher knowledge of use and form. The course will not only introduce new structures in language but also review and expand upon those already learned. (The credit for this course does not apply toward a baccalaureate or an associate's degree.) Prerequisite: instructor's permission.

Cr 1.5.

## ESL 007 Listening and Oral Communication

This intermediate to high-intermediate course is part of the curriculum of the Intensive English Language program. The course focuses on the improvement of the listening and oral skills that are necessary for the university classroom. Much of the material is derived from authentic sources, such as radio and television broadcasts, as well as lectures on a variety of topics that might be encountered in a university setting. The primary goal of the course is to assist students in recognizing a variety of spoken English and to discuss and respond to the issues. Students will also be exposed to a wide variety of vocabulary and grammatical structure as it arises in context. (The credit for this course does not apply toward a baccalaureate or an associate degree.) Prerequisite: instructor's permission. Cr 1.5 .

## ESL 008 Reading and Writing

This intermediate/higher intermediate course is a part of the curriculum of the Intensive English Language program. The course focuses on the improvement of the reading and writing skills that are necessary for the university classroom. All of the reading is from authentic sources emphasizing academic writing strategies for writing short reaction papers, summaries, and essays based on the readings. Informal journal writing is an integral part of the course. Students will also be exposed to a wide vocabulary and systematic overview of grammatical structure. (The credit for this course does not apply toward a baccalaureate or an associate degree.) Prerequisite: instructor's permission. Cr 1.5 .

## ESL 009 Intensive Reading and Speaking Fluency

This course is part of the curriculum of the Intensive English Language program. It focuses on the development of the fluency in speaking and reading that are necessary for the university classroom. Emphasis is on developing speed and comprehension of the skill areas. All of the reading is from authentic sources on a wide variety of topics, both fiction and non-fiction. Students will learn strategies for speaking in front of a group, compensating for accent, and conducting informational interviews.
(The credit for this course does not apply toward a baccalaureate or associate degree.) Prerequisite: instructor's permission.

Cr 1.5.

## ESL 010 English for Speakers of Other Languages Level I: Intermediate Reading, Writing, and Vocabulary

An intermediate-level English language course for students whose first language is not English. This is a developmental ESL course designed to help students compose fluent and accurate writing as used in academic settings. Students will develop a greater sense of confidence in using written English as a method of communication. Emphasis will be placed on achieving completeness and coherence in written compositions and on understanding the mechanical aspects of the essay. In reading, students will learn to read for meaning and to analyze basic texts and a short novel. Through reading, writing, and specific exercises, students will expand their grasp of vocabulary and idiom needed for academic work. Prerequisite: instructor's permission.

Cr 3.

## ESL 011 English for Speakers of Other Languages: Intermediate Grammar and Writing

An intermediate-level English language course for non-native speakers of English that will enable students to benefit from a stronger foundation in understanding and using English grammar correctly and confidently. Emphasis is on understanding the meaning, use, and form of common grammar structures needed for academic writing. Students will have a basic knowledge of English grammar, but will need more work on accurate production of English, both oral and written, through a series of grammatical, written, and oral exercises. This course will be more developmental in that it will prepare students for the more advanced ESL 102. Prerequisite: instructor's permission.

Cr 3.

## ESL 100C College Writing

This section of College Writing (ENG 100C) is intended for non-native speakers of English only. The course focuses on the analysis of professional and student writing as a way of sharpening awareness of how to use the English language effectively for use in the academic classroom. The writing assignments encourage students to apply the principles discussed in class to their own work. This course cannot be used to satisfy a humanities requirement. Prerequisite: ESL 104A or instructor's permission.

Cr 3.

## ESL 102 English for Speakers of Other Languages: Advanced Grammar and Writing

An advanced-level English language course for non-native speakers of English focusing on building a stronger foundation of grammatical skills that will aid students in producing more natural and accurate writing skills in the English language. Emphasis is placed on understanding and using grammar struc-
tures needed for academic writing and discussion on the university level. Through a series of grammatical exercises, meaningful drilling, both written and oral, and analysis of the structure of English, students will become better used to producing more complex sentences and short essays. Prerequisite: ESL011 or instructor's permission. Cr 3.

## ESL 103 English for Speakers of Other Languages Level II: Higher Intermediate Reading, Writing, and Vocabulary

A higher intermediate-level English language course for non-native speakers of English designed to help students produce grammatical, well-constructed, coherent English, in both written and spoken form. Based on the writing process, students will write and rewrite paragraphs and essays drawn from topical and academic reading, works of fiction, and class discussion. Students learn to read and analyze for content and style a variety of authentic works of fiction
and non-fiction. A strong focus will be on enhancing the students' academic vocabulary. Prerequisite: ESL 010 or instructor's permission.

## ESL 104A English for Speakers of Other Languages Level III: Advanced Reading, Writing, and Vocabulary

An advanced-level English language course for nonnative speakers of English who are nearly ready for College Writing but need additional work in finetuning their language skills. Much of the work done in this class will focus on reading academic literature, fiction, and non-fiction, as well as the academic writing skills necessary for university work. Additional focus will be on vocabulary extension and the use of idiom. Students will be required to write short essays, keep a written journal, and make a major oral presentation in class. Prerequisite: ESL 103 or instructor's permission.

Cr 3.

# School of Music 

Director: E. Scott Harris, Corthell Hall, Gorham
Professors: Fithian, Kargul, Martin, Russell; Associate Professors: Chickering, Harris, M. Kaschub, Keef, Lehmann, Oberholtzer, Owens, Parchman; Assistant Professors: Christiansen, Sonenberg; Professor Emeritus: Cole; Instructor: A. Kaschub; Adjunct Faculty: Burns, Gunn, Kaschub, Kissack, Vaillancourt

Artist Faculty Piano: Anastasia Antonacos, Thomas Bucci, Laura Kargul; Organ: Ray Cornils; Voice: Ellen Chickering, Bruce Fithian, Christina Astrachan, David Goulet, Kathleen Grammer, Judith James, Jenny Robinson, Malcolm Smith, Jacque Wilson-Sharlach, Margaret Yauger; Violin: Robert Lehmann, Ferdinand Liva; Viola: Robert Lehmann; Cello: William Rounds; Bass: Bronislaw Suchanek; Flute: Jean Rosenblum; Oboe: Neil Boyer; Clarinet: Thomas Parchman; Saxophone: Timothy O'Dell, Bill Street; Bassoon: Ardith Keef; Trumpet: Betty Rines; French Horn: John Boden; Trombone: Brian Diehl, Mark Manduca; Euphonium: Dan Hunter; Tuba: Dan Hunter, Percussion: Nancy Smith; Harp: Jara Goodrich; Classical Guitar: Keith Crook; Jazz Guitar: Gary Wittner; Jazz Bass: Bronislaw Suchanek; Jazz Drums: Les Harris, Jr.; Jazz Piano: Mark Shilansky; Jazz Trumpet: Trent Austin; Jazz Trombone: Chris Oberholtzer; Jazz Voice: Michelle Snow; Musical Theatre Coaching: Edward Reichert

The University of Southern Maine School of Music trains and educates musicians who will pursue careers as performers, teachers, and scholars. The School also assumes a responsibility for educating tomorrow's audiences through its courses for general students and through its presentation each year of more than 100 performances by faculty, guest artists, and students.

The School of Music offers a number of music ensembles open to all students, a number of courses primarily for non-majors, and concentrated study in the areas of music history, music theory, performance, and music education. Students majoring in music may earn a baccalaureate degree in education (bachelor of music in music education), in arts and sciences (bachelor of arts in music), or in music (bachelor of music in performance). In addition, a minor in music is offered for students in the College of Arts and Sciences. Students who wish to pursue a self-designed major in music should consult the director of the School of Music.

## Admission Requirements

Admission to degree programs in music will be based on the following criteria: a) the applicant's high school record, including recommendations, and SAT achievement scores; b) an audition, which includes performance on the applicant's major instrument, and tests in aural comprehension, rhythmic recitation, and sight singing which are administered to each applicant individually by a member of the staff; and c) a written musical achievement test. In addition, music theatre applicants must prepare a two-minute monologue and be prepared to execute a simple movement combination.

At the time of first registration in the School of Music, a determination will be made, based on the number of credits accepted in transfer, of how many semesters will be required as a full-time USM student. The student will then be responsible for that many semesters of the recital class and ensemble requirements, regardless of whether the student continues on a full-time or part-time basis.

Students who desire to apply for advanced standing in music curricula should apply to the director of the School for a special examination.

## School Standards

Students enrolled in the music education program will perform a juried exam at the end of each academic year. Students enrolled in a performance degree program will perform a juried exam at the end of each semester. The jury panel will determine the level of performance, grade the performance pass/fail, and submit a written evaluation that will be included in the student's file. Students who fail the juried exam will be placed on probation. Students who fail two consecutive juries will be dismissed from the program. Students are required to perform at the appropriate level of competence as established by the music faculty, and may perform required recitals only after attaining appropriate jury levels.

Students must earn grades of C- or better in all courses that count toward fulfillment of major requirements. D and F grades do not fulfill prerequisite requirements. However, an exception will be made for Basic Conducting. In this course a grade of D will allow the student to progress to Instrumental or Choral Conducting. If a grade of C- or better is earned in this next semester, the preceding semester need not be repeated. If a grade of D or F is earned in this next semester, both semesters must be satisfactorily repeated in proper sequence. No course may be repeated more than once. Students who fail in the second attempt to pass a course with a grade of C - or better will be dismissed from the program.

Students must attain a 2.25 minimum grade point average before being admitted to junior- or senior-level music major courses. Students who do not meet academic or applied music standards will be placed on probation and may be dismissed if by the end of the following semester they do not meet these standards. Music education majors must have a grade point average (GPA) of at least 2.5 and have passed Praxis I and II exams to enroll in student teaching (EDU 324).

A student will be placed on probation or dismissed by the director of the School when they do not meet the standards of the School of Music. While on probation, a student should carry a maximum of a 14 -hour credit load. Students who have been dismissed may not enroll in music major courses, but may re-audition after one semester.

## Music Fees

An applied music fee of $\$ 200.00$ per semester for hour lessons, or $\$ 100.00$ per semester for half-hour lessons will be charged all undergraduate music majors in addition to the University tuition fee. Applied lessons for undergraduate music majors, beyond those required for the degree, will be subject to a fee of $\$ 240.00$ for half-hour lessons and $\$ 480.00$ for hour lessons in addition to the University tuition fee.

For a music minor the University will subsidize the applied music fee, to a maximum of eight credit hours, if the student demonstrates adequate proficiency. The student will pay $\$ 200.00$ per semester for hour lessons and $\$ 100.00$ per semester for half-hour lessons in addition to the University tuition fee.

Students other than music majors and minors will be accommodated for applied music lessons if a teacher's time is available, and will be subject to a fee of $\$ 240.00$ for half-hour lessons or $\$ 480.00$ for hour lessons in addition to the University tuition fee.

Students registering for applied music must report to the director of the School for assignment to an applied music teacher and scheduling of lessons. All fees must be paid before lessons commence.

A chamber music fee of $\$ 50.00$ per section of chamber music will be charged to each person participating in coached chamber music.

## Programs and Requirements

## Music Core Requirements

To be considered a music major in good standing, and to be eligible for applied music subsidies, a student must be making reasonable progress toward the completion of a music degree. Initially, this will be interpreted to mean consistent progress toward completion of the music core and compliance with all other Department requirements.

Each student enrolled as a major in a music degree program will take the following courses during the first two years:

MUS 120G, 121G, 220G, 225 History of Music/World Music
MUS 130F, 131, 230, 231 Music Theory
MUS 132, 133, 232, 233 Sight Singing and Ear Training
Musical Theatre majors take all history courses except MUS 121.

## Concert Attendance Policy

All music majors are required to attend a number of concerts and recitals each semester in order to maintain good standing in the School. Failure to meet the requirements of this policy can result in probation and suspension. The policy is administered through MUS 442 Recital Class.

## Bachelor of Music in Music Education (MUE)

This degree program prepares students for careers in music teaching. Students completing this course of study are prepared to apply for Maine state teacher certi-
fication for kindergarten through grade 12. Certification applications must be accompanied by scores from the Praxis I national teaching exam taken during the sophomore year, and the Praxis II exam taken before student teaching. Students are advised to meet with their advisor if they are seeking teaching certification in states other than Maine. Because a person must first be a good musician in order to be a good music educator, the program includes substantial work in music theory, ear training, music history, applied music, ensembles, and conducting, in addition to music education methods courses and field experiences. Students elect (1) instrumental concentration, (2) vocal concentration, or (3) a combined program which includes major portions of both the instrumental and vocal concentrations.

The minimum number of credits (exclusive of the University's Core curriculum) required for the major, instrumental concentration: 100; vocal concentration: 100.5; or combined concentration: 101.

All students are reminded that, in addition to meeting School requirements for a major leading to a baccalaureate degree, they must also meet the University's Core curriculum requirements.

All music education majors are required to take the following 22 hours of professional education courses: MUE 100 Introduction to Music Education; MUE 220 Historical Foundations and Learning Theories of Education; EDU 324 Student Teaching; HRD 200J Human Growth and Development; and EDU 335 Exceptional Students in the Classroom.

Additionally, all music education majors will meet the following requirements:

1. Fulfillment of minimum requirements in both voice and piano, regardless of major instrument. Music education keyboard majors must satisfy the requirements of MUS 251 (Piano Class IV), either by examination or enrollment, prior to student teaching. Music education voice majors who have passed MUE 226 (Vocal Pedagogy) and a senior recital will not be required to take MUS 350 and 351 (Voice Class I, II).
2. Successful completion of 3.5 credit hours in Chorale or Chamber Singers and 3.5 credit hours in the appropriate major instrumental ensemble (Concert Band for winds and percussion, or University Orchestra for strings). Students who do not meet the audition requirements of either Concert Band or University Orchestra will be assigned to Percussion Ensemble. Pianists will satisfy one credit of this requirement through MUS 452 Accompanying. Guitarists may take up to one credit of this requirement in chamber music. All transfer students must complete a minimum of one credit of the appropriate major ensemble at USM. All instrumental music education majors must enroll in either MUS 408 Wind Ensemble or MUS 406 Chamber Music for a minimum of one semester. Keyboard majors will fulfill this requirement through MUS 452 Accompanying.
3. Successful completion of seven semesters of major applied music lessons.
4. Successful completion of recital class in each semester when registered for major applied lessons. The requirement is fulfilled after seven successfully completed semesters, even if the student continues to study applied music.
5. Presentation of a solo recital in the senior year (or junior year with special permission). The recital contains 30 minutes of music including at least 25 minutes of solo performance; the remainder may be chamber music. Normally the program will be shared with another MUE senior or MUP junior recital. A longer (full-length) program requires the special approval of the faculty. A student may not perform the required recital during the semester of student teaching.
Student Teaching Student teaching is the culmination of a comprehensive, preprofessional, required sequence of activities that includes the following:

Freshman year: all first-year music education majors enroll in MUE 100 Introduction to Music Education.

Sophomore year: All second-year music education majors enroll in MUE 220 Historical Foundations and Learning Theories.

Junior year: music courses wherein students observe, plan, and teach in classrooms.

Senior year: student teaching that includes general classroom and ensemble teaching experiences.

Professional Education: Music Education Courses Courses marked with an asterisk (*) are offered on a rotating basis. Students should work closely with their advisors in planning their courses of study in the music education program.

All music education majors must complete the following courses:
MUE 221 Brass Class
MUE 222 Percussion Class
MUE 224 Woodwinds I
MUE 320 String Class-Violin and Viola
MUE 322 General Music Methods K-12
MUE 326 Jazz Methods
For instrumental concentration, these additional courses must be completed:

* MUE 225 Woodwinds II
*MUE 321 String Class-Cello and Bass
*MUE 324 Instrumental Methods
* MUE 420 Marching Band Techniques

For vocal concentration, these additional courses must be completed:

* MUE 226 Vocal Pedagogy
* MUE 323 Secondary Choral Methods
* MUE 325 Elementary and Middle Level Choral Methods

For combined concentration, these additional courses must be completed:

* MUE 225 Woodwinds II

Choose two of the following:

* MUE 323 Secondary Choral Methods
* MUE 324 Instrumental Methods
* MUE 325 Elementary and Middle Level Choral Methods

Elective Concentration in Jazz Education (MUE) Students seeking an elective concentration in jazz education must fulfill all the requirements for either the instrumental concentration, the vocal concentration, or the combined concentration, along with the following additional courses:

MUS 407 Jazz Ensemble (1 credit)

* MUS 380 Jazz Improvisation I (3 credits)
and 3 credits in any of the following:
* MUS 206 Jazz History (3 credits)
* MUS 381 Jazz Improvisation II (3 credits)
* MUS 337 Jazz Arranging (3 credits)

MUP 201 Applied Music-Jazz: Brass, Woodwinds, Voice, Guitar, Piano, Bass, Percussion (3 semesters)

Musicianship: Music Courses Courses marked with an asterisk(*) are offered on a rotating basis. Students should work closely with their advisors in planning their courses of study in the music education program.

All music education majors must take the following courses:
Music Core Requirements, 28 credits
MUP 202F Applied Music Major, 14 credits
MUP 491 Recital
MUS 150 Piano Class I
$\begin{array}{ll}\text { MUS } & 151 \quad \text { Piano Class II }\end{array}$
MUS 244 Basic Conducting
MUS 250 Piano Class III
MUS 251 Piano Class IV
MUS 350 Voice Class I
MUS 351 Voice Class II
MUS 420 Orchestration
MUS 442 Recital Class (seven semesters)
MUS 401F University Chorale (seven semesters)
or
MUS 405F Chamber Singers (seven semesters)
MUS 402F Concert Band (seven semesters)
or
MUS 400F Orchestra (seven semesters)
The following courses apply to each specialized music education curriculum.

Instrumental concentration:
*MUS 344 Instrumental Conducting
*MUS 240, 340 Instrumental Conducting Lab
Vocal concentration:
*MUS 255 Guitar
*MUS 345 Choral Conducting
*MUS 241,341 Choral Conducting Lab
MUS 404 Opera Workshop
THE 290 Oral Interpretation of Literature (not required, but strongly recommended)
Combined concentration:
*MUS 255 Guitar
*MUS 344,340 Instrumental Conducting \& Lab or

* MUS 345,341 Choral Conducting \& Lab

MUS 404 Opera Workshop
The Teacher Education Council, comprised of deans, department chairs, faculty, and school representatives from all programs offering initial teacher preparation, is the governing body for program review and evaluation for all initial-level teacher education programs at USM.

## Bachelor of Arts in Music (MUS)

This degree program is designed to provide the opportunity for a scholarly study of music to meet the needs of those who wish to obtain a liberal education with an emphasis on music and those who plan to do graduate work in music. The program aims to instill a thorough understanding of music and its relationship to contemporary society. The study of music history and theory is central in this curriculum. Sufficient flexibility is built into the program to allow the individual student to establish areas of emphasis both in music and in the arts and sciences.

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 96 .

Courses marked with an asterisk (*) are offered on a rotating basis. Students should work closely with their advisors in planning their courses of study in this degree program.

Music Core Requirements, 28 credits

* MUS 320 Seminar in Music History
*MUS 330 Form and Analysis
*MUS 332 Counterpoint
Either
*MUS 333 Advanced Analysis of Tonal Music
or
*MUS 335 Advanced Aural Skills
Applied Music (4 credits)
Recital Class (8 semesters, no credit)
Performance Ensembles ( 4 credits) All transfer students must complete a minimum of 1 credit of ensemble at USM.

Music Electives (8 credits)
Electives from outside the School of Music (40 credits; these electives include, as appropriate, language proficiency)

Language proficiency means completion of a second year of a language. This may be bypassed by examination for no academic credit.

The University will subsidize up to a total of 16 credit hours of applied music lessons for B.A. music students.

## Bachelor of Music in Performance (MUP)

This degree program is designed for those who wish to prepare for a career in music performance and/or applied music teaching, and those who plan to do graduate work in applied music. The program aims to instill a thorough understanding of music and its relationship to contemporary society. Private lessons; solo, chamber and large ensemble performance; and the study of literature and pedagogy of the major instrument are emphasized. Basic understanding of the standards and opportunities for professional performance leads the student to realistic expectations for a career as a performer or teacher.

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 96.

Courses marked with an asterisk $\left({ }^{*}\right)$ are offered on a rotating basis. Students should work closely with their advisors in planning their course of study in this degree program.

Music Core Requirements, 28 credits
MUS 244 Basic Conducting
MUS 321 Literature of the Major Instrument
*MUS 330 Form and Analysis
*MUS 332 Counterpoint (non-voice majors)
Either

* MUS 333 Advanced Analysis of Tonal Music
or
*MUS 335 Advanced Aural Skills
MUS 442 Recital Class (eight semesters)
MUP 203 Applied Music, Major Instrument (eight semesters)
MUP 390 Junior Recital
MUP 490 Senior Recital
MUS 150, 151, 250, 251 Piano Class I, II, III, IV (non-keyboard majors only)
MUS 360,361 Advanced Keyboard Skills I, II (keyboard majors only)
MUS 372 Pedagogy of the Major Instrument
THE $120 \quad$ Acting I: Stage Movement (voice majors only)
THE 103F Contemporary Dance (voice majors only)
THE 220 Acting III: Scene Study (voice majors only)
Music Electives (4 credits)
Performance Ensembles (6 credits)
Electives in any college (voice majors, 9 credits; all others, 15 credits)
Diction for Singers (MUS 356 and MUS 257) and MUS 332 Counterpoint are required of voice majors only and may be taken in lieu of three credits of music electives. Voice majors must meet a minimum proficiency in Italian and either French or German either by exam or through completion of the second semester of the basic course in the Department of Modern and Classical Languages and Literatures.

Performance majors must have a minimum of 4 credit hours in the appropriate major ensemble and 2 credit hours in chamber music. Piano majors must complete 2 credit hours in chamber music and the remaining 4 credit hours in chamber music, accompanying, or playing keyboard in a conducted ensemble. Organ majors must complete 2 credit hours in University Chorale, 1 credit hour in accompanying or playing keyboard in a conducted ensemble, 1 credit hour in chamber music (onehalf of which must be fulfilled by playing continuo), and 2 credit hours in organ improvisation. Guitar majors must complete 6 credit hours in chamber music or playing guitar in a conducted ensemble. Voice performance majors may fulfill one credit of chamber music by taking MUS 405 Chamber Singers and may also fulfill one credit of chamber music by taking MUS 404 Opera Workshop. All transfer students must complete a minimum of one credit of the appropriate major ensemble at USM.

Performance majors must complete satisfactorily a short recital in the junior year and a full recital in the senior year. The junior recital must meet the same standards as the MUE senior recital. The senior recital, 50 minutes of music, must include at least 40 minutes of solo performance. All recitals must show a range of performance pieces demonstrating a variety of historical styles.

## Bachelor of Music in Performance-Jazz Studies Concentration (MUP)

This degree concentration is designed as foundation studies for those who wish to prepare for careers in jazz or commercial music performance and/or jazz instruction and those who plan to pursue graduate work in jazz studies. This program aims to instill a thorough understanding of this unique American art form and its relationship to contemporary society. Applied music, jazz improvisation, jazz arranging, jazz history, and jazz ensembles are emphasized. A basic understanding of the standards and performance opportunities for professional performance leads the student to realistic expectations for a career as a performer or teacher.

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 97.

Courses marked with an asterisk (*) are offered on a rotating basis. Students should work closely with their advisors in planning their courses of study in this concentration.

Music Core Requirements, 28 credits

| * MUS | 206 | Jazz History |
| :--- | :--- | :--- |
| * MUS | 380,381 | Jazz Improvisation I, II |
| *MUS | 337 | Jazz Arr |

* MUS 337 Jazz Arranging

MUP 201, 202, Applied Music, Major Instrument
203 (eight semesters)
MUP 390 Junior Recital
MUP 490 Senior Recital

* MUS 150,151, Piano Class I, II
* MUS 252, 253 Jazz Piano Class I, II
*MUS 374 Jazz Pedagogy
MUS 406 Chamber Music-Jazz Combo (2 credits)
MUS 407 Jazz Ensemble (4 credits)
Major Ensemble ( 2 credits) (other than Jazz Ensemble)
Music Electives (6 credits)
Electives in any college ( 15 credits)
Students should take a minimum of .5 credit of the appropriate section of MUS 406 Chamber Music-Jazz Combo during each of their first two academic years. Students who are not selected for Jazz Ensemble (MUS 407) may substitute additional credits of MUS 406 Chamber Music-Jazz Combo, with permission of the director of jazz studies. Guitarists and pianists may fulfill the major ensemble requirement by taking Accompanying (MUS 452) or any small ensemble outside the jazz idiom.

Students in the jazz concentration will divide their 24 credit hours of applied music equally between classical applied studies and jazz applied studies in brass, woodwinds, voice, guitar, piano, bass, or percussion, by taking either a 2-credit or a 1-credit lesson in each area every semester. Jazz students must take a jazz jury each semester and a classical jury during the spring semester, and are expected to pass a level III jury in each area prior to giving their senior recital. Students in the jazz concentration must satisfactorily complete a short recital in the junior year and a full recital in the senior year. The junior recital should consist of 25 minutes of jazz repertoire and the senior recital should consist of 25 minutes of jazz repertoire and 25 minutes of classical repertoire. The jazz repertoire shall demonstrate the student's skills at improvisation, composition, and arranging, and should be chosen under the guidance of their applied jazz instructor.

Jazz concentration majors whose primary instrument is electric guitar or electric bass may elect to take 16 credit hours in jazz guitar or jazz bass and 8 credit hours in classical guitar or classical bass. These students must take a jazz jury each semester and a classical jury during the spring semester of their first two years. They are expected to pass a level III jazz jury and a level II classical jury prior to giving their senior recital. The junior recital should consist of 25 minutes of jazz repertoire and the senior recital should consist of 50 minutes of jazz repertoire. The jazz repertoire shall demonstrate the student's skills at improvisation, composition, and arranging, and should be chosen under the guidance of their applied jazz instructor.

## Bachelor of Music in Performance_Piano Pedagogy Concentration (MUP)

This degree concentration is for students who wish to prepare for a career in private piano teaching and those who wish to do graduate work in piano pedagogy. The program focuses upon the development of teaching techniques and performance skills. Specific areas of pedagogy study include: methods and materials, child development, learning theory as it pertains to music education, group and individual lesson formats, and business aspects of running a private studio. The program also includes a supervised piano teaching internship during the junior or senior year. A basic understanding of the standards and opportunities for teaching, as well as performance, leads the student to realistic expectations for a career in private piano teaching.

The minimum number of credits (exclusive of the University's Core curriculum) required for the concentration: 97.

Courses marked with an asterisk are offered on a rotating basis. Students should work closely with their advisors in planning their course of study in this concentration.

Music Core Requirements, 28 credits

| * MUS | 244 | Basic Conducting |
| :--- | :--- | :--- |
| * MUS 321 | Literature of the Major Instrument |  |
| * MUS 330 | Form and Analysis |  |
| * MUS 332 | Counterpoint |  |
| MUS 442 | Recital Class (eight semesters) |  |
| MUP 203 | Applied Music, Piano (eight semesters) |  |
| MUP 490 | Senior Recital |  |
| * MUS 252, 253 | Jazz Piano Class I, II |  |
| * MUS 360,361 | Advanced Keyboard Skills I, II |  |
| * MUS 372,373 | Piano Pedagogy I, II |  |
| MUS 376,377 | Class Piano Teaching I, II |  |
| MUS 378,379 | Practicum in Piano Pedagogy I, II |  |
| Performance ensembles (4 credits) |  |  |
| Electives in any college ( 6 credits) |  |  |

Two credits of Applied Jazz Piano (MUP 201 or 202) may be substituted for MUS 252 and 253, with permission of the instructor. An additional two credits of Applied Jazz Piano are optional and may be taken in lieu of two credits of electives.

Students must complete one credit hour of ensemble by singing in either University Chorale or Chamber Singers. Another one credit must be completed by playing any instrument in any conducted ensemble. One credit must be taken in piano chamber music, and the remaining one credit may be taken in either chamber music or accompanying.

Students in the piano pedagogy concentration must also complete the following professional education courses:

| MUE | 220 | Historical Foundations and Learning Theories |
| :--- | :--- | :--- |
| HRD | 200 J | Human Growth and Development |

Students in the piano pedagogy concentration must play a full 50-minute recital in the senior year, including at least 40 minutes of solo repertoire. The recital should illustrate a range of historical styles.

## Bachelor of Music in Performance-Musical Theatre (MUP)

This degree program, offered in collaboration with the Theatre Department, is designed for those who wish to pursue a career in musical theatre performance. The program aims to instill a thorough understanding of music and theatre and their relationship to contemporary society. Private lessons, solo and ensemble performance, and the theatrical training necessary for this discipline are emphasized. A basic understanding of the standards and opportunities for professional performance leads the student to realistic expectations for a career as a performer or teacher.

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 96.

The courses marked with an asterisk $(*)$ is offered in alternate years. Students should work closely with their advisor in planning their course of study in this degree program.

| Music Core Requirements, 25 credits |  |  |
| :--- | :--- | :--- |
| MUP 201F, 202F | Applied Voice (24 credits) |  |
| MUS 244 | Basic Conducting |  |
| * MUE 372 | Pedagogy of the Major Instrument |  |
| MUS 404 | Opera Workshop (3 semesters) |  |
| MUS 442 | Recital Class (4 semesters) |  |
| MUS 401 F | University Chorale |  |
|  |  | or |
| MUS | 405F | Chamber Singers (3 semesters) |
| MUS 150, 151, 250, 251 Piano Class I, II, III, IV |  |  |
| Music Electives | (3 credits) |  |
| THE | 101 G | Introduction to Drama |
| THE | 103 F | Contemporary Dance |
| THE | 120 | Acting I: Stage Movement |
| THE | 121 | Acting II: Stage Voice |
| THE | $130,131,132,133$ Theatre Workshop |  |


| THE | 139 | Theatrical Make-up |
| :--- | :--- | :--- |
| THE | 203 F | Musical Theater Dance |
| THE | 220 | Acting III: Scene Study |
| * THE | 303 | Music Theatre Performance (4 credits) |
| Theatre Elective (3 credits) |  |  |
| General Electives (3 credits) |  |  |

Students in the musical theatre concentration will be expected to achieve an approved jury level at the end of each semester in order to stay in the program. They must successfully perform two significant roles and one chorus role in an approved music theatre production. Students must successfully complete a crew or backstage assignment; presence is required at all strikes for all productions in which students participate, whether as a crew or cast member.

Minor in Music (Bachelor of Arts)
This minor program is designed to provide an opportunity for candidates working toward the bachelor of arts degree who demonstrate interest and ability to continue music studies at the undergraduate level.

The minor consists of MUS 130 (Music Theory I), MUS 120 (Music until 1900), and 14 credits of music electives, excluding MUS 100 and MUS 110. At least six of these credits must be taken at USM.

Applied music fees, to a maximum of eight credit hours, will be subsidized by the University provided that the student demonstrates adequate proficiency.

## MUP 101F Applied Music

An opportunity to continue at the college level the private study of piano, voice, organ, guitar, or any orchestra or band instrument to fulfill one credit of Core requirements in a performance-centered art. One halfhour lesson per week for twelve weeks. Restricted to non-majors and certain music students. May be repeated for credit. Special fee assessed.

## MUP 102F Applied Music

An opportunity to continue at the college level the private study of piano, voice, organ, guitar, or any orchestra or band instrument to fulfill two credits of Core requirements in a performance-centered art. One hour lesson per week for twelve weeks. Restricted to nonmajors and certain music students. May be repeated for credit. Special fee assessed.

## MUS 100G Music Appreciation and History

A survey of music from the Gregorian chant to the modern times, covering musical practices of the renaissance, baroque, classical, romantic, and contemporary periods. Representative works by the outstanding composers of each period. Open to all students.

Cr 3 .

## MUS 102G Music of the Portland Symphony

A course designed to increase the student's understanding and appreciation of the music scheduled for the Portland Symphony Orchestra's regular concerts of the semester. Attendance is required at the concerts in addition to regularly scheduled classes. Historical background, biography of composer, musical analysis, rehearsal and performance techniques, and music criticism. Open to all students.

Cr 3.

## MUS 103G Introduction to Jazz

A survey of jazz from its inception to the present day. Involves a study of the origins and stylistic development of jazz. Open to all students. Cr 3.

## MUS 104 Masterpieces of Opera

An introduction to the forms and conventions of

## Music Performance Groups <br> Major Ensembles

## MUS 400F Southern Maine Symphony Orchestra

A string, wind, and percussion ensemble open to all University students and community members through audition. The ensemble focuses on the fundamentals of ensemble performance, dealing with a variety of literature, and performs at least one major concert per semester. Prerequisite: audition. Cr 0.5 .

## MUS 401F University Chorale

A choral ensemble for mixed voices open to all University students through audition. The Chorale sings repertoire from all historical periods and performs locally and on a spring tour. The purposes of the ensemble are to develop musical expression and precision of intonation and rhythm and to promote
music drama from early opera to contemporary works presented in historical order. Other aspects of this genre to be explored will include the role of the composer, librettist, conductor, singer/actor, stage director, set designer, costumer, and lighting designer in opera. Open to all students.

Cr 3.

## MUS 109 Dynamic Posture and Alignment

Provides students with a practical understanding of anatomy, kinesiology, and biomechanics in order to improve ease and freedom of motion while in a stationary position. This course is designed for musicians, as well as other performers and creative artists, athletes, and computer users. Cr 2.

## MUS 110F Fundamentals of Music

A background study of concepts and skills essential to an intelligent reading of music. The development of natural music abilities through participating in singing, rhythmic activities, and instrumental work. An appreciation of music through awareness of basic structures. Open to all students.

Cr 3.

## MUS 202G Music in America

A survey of the important trends in music from colonial days to the present. Emphasis will be placed on the role of the Native American composer in the development of sacred music, concert music, jazz, musical comedy, and pop music. Open to all students.

Cr 3.
MUS 203G Music in the Twentieth Century
A study of trends in European and American music from the beginning of the century to the present with emphasis on the literature of the major composers. Open to all students.

Cr 3.

## MUS 334F Electronic Music I

Lectures, discussions, and exercises in sound generation and processing, with emphasis on voltagecontrolled systems. The student's time will be divided between class sessions and actual work in the electronic studio. Open to all students. Cr 3.
the musical development necessary for excellence in ensemble singing. Prerequisite: audition. Cr 0.5 .

## MUS 402F University Concert Band

A wind and percussion ensemble open to all University students through audition. The ensemble focuses on the fundamentals of ensemble performance dealing with a variety of literature. The University Concert Band performs at least one major concert per semester and is active in presenting school assembly programs. Prerequisite: audition.

Cr 0.5.

## MUS 405F Chamber Singers

An ensemble of mixed voices selected by audition. The ensemble specializes in a cappella repertoire,
notably of the Renaissance era and the 20th century. Prerequisite: audition.

Cr 0.5.

## MUS 407 Jazz Ensemble

An instrumental ensemble specializing in the study and performance of jazz for large and small groups from Dixieland to present. Open to all students by audition. Prerequisite: audition.

Cr 0.5.

## Small Ensemble

## MUS 403 Percussion Ensemble

A percussion ensemble open to all University students through audition. Prerequisite: audition.

Cr 0.5.

## MUS 404 Opera Workshop

This ensemble will focus on the union of musical ideas with dramatic situations and will explore the ways in which singers must convey the essence of a dramatic situation. Performances of scenes from operas, operettas, and musical theater. Prerequisite: audition.

Cr 0.5.

## MUS 406 Chamber Music

A performance course open to all qualified students interested in forming chamber groups: duets, trios, quartets, quintets, etc., under faculty supervision.

Cr 0.5.

## Music Performance

## MUP 201F Applied Music

May be taken in piano, voice, organ, guitar, or any orchestra or band instrument. One half-hour lesson per week for twelve weeks in the minor performance area in fulfillment of applied music requirements. Restricted to music majors and minors. May be repeated for credit. Special fee assessed. Cr 1.

## MUP 202F Applied Music

May be taken in piano, voice, organ, guitar, or any orchestra or band instrument. One hour lesson per week for twelve weeks in the major performance area in fulfillment of applied music requirements. Restricted to music majors and minors. May be repeated for credit. Special fee assessed.

## MUP 203 Applied Music

May be taken in piano, voice, organ, guitar, or any

## Music Education

## MUE 100 Introduction to Music Education

This course will provide students with an understanding of the philosophical foundation of the profession and will introduce students to the National Standards for Arts Education which constitute a key component of the educational goals of their intended profession. Students will be guided in observing teachers in classroom and rehearsal settings to develop their understanding of philosophy and stan-

## MUS 408F Wind Ensemble

The Wind Ensemble offers a unique musical experience to its members. The versatility of the Wind Ensemble, based upon the solo performer premise, has established a tradition of performing chamber and large instrumentations, traditional or experimental combinations, and early through contemporary literature. The membership of the Wind Ensemble is selected from Concert Band personnel. Prerequisite: audition. Corequisite: MUS 402F. Cr 0.5 .

## MUS 409 Harp Ensemble

A harp ensemble open to all University students by audition. The ensemble focuses on the fundamentals of ensemble performance and plays literature of contrasting musical periods and styles. Prerequisite: audition.

Cr 0.5.

## MUS 410 Collegium Musicum

An early music ensemble dedicated to the performance of music from the Medieval through the Baroque period. This ensemble is open to singers and instrumentalists of the University and the general community. Prerequisite: audition. Cr 0.5 .

## MUS 452 Accompanying

A workshop course in applied accompanying under faculty supervision. One-half credit is awarded for each twenty hours of University-supervised accompanying, with a maximum of two credits in any academic year.

Cr 0.5-2.
orchestra or band instrument. One hour lesson per week for twelve weeks in the major performance area in fulfillment of applied music requirements. Restricted to B.M. performance majors. May be repeated for credit. Special fee assessed. Cr 3.

## MUP 390 Recital

Public performance in the area of applied study for junior performance majors. Graded pass/fail. Cr 0.

## MUP 490 Recital

Public performance in the area of applied study for senior performance majors. Graded pass/fail. Cr 0.

## MUP 491 Recital

Public performance in the area of applied study for music education majors. Graded pass/fail. Cr 0.
dards as they are implemented through teaching. Restricted to music majors and minors. Cr 1.

## MUE 220 Historical Foundations and Learning Theories

This course will provide an overview of the historical role of schools in American society and an introduction to contemporary learning theory upon which music instruction in kindergarten through
grade 12 is predicated. Restricted to majors and minors. Prerequisite: MUE 100.

Cr 3.

## MUE 221 Brass Class

Methods of teaching brass instruments including practical experience on the various instruments; elements of transposition. Prerequisites: MUS 131 and 133.

Cr 1.

## MUE 222 Percussion Class

Practical experience on and methods of teaching percussion instruments. Prerequisites: MUS 131 and 133.

Cr 1 .

## MUE 224 Woodwinds I

Methods of teaching flute and clarinet. Practical experience on these instruments; elements of transposition. Prerequisites: MUS 131 and 133. Cr 1.

## MUE 225 Woodwinds II

Methods of teaching saxophone, oboe, and bassoon. Practical experience on these instruments; elements of transposition. Prerequisite: MUE $224 . \quad \mathrm{Cr} 1$.

## MUE 226 Vocal Pedagogy

A study of basic principles of vocal production-breathing, phonation, registration, and resonance-and a discussion of the techniques used to teach voice.

Cr 1.

## MUE 320 String Class I: Violin and Viola

Practical experience playing and methods of teaching violin and viola, with additional information on string programs in the public schools. Prerequisites: MUS 131 and 133.

Cr 1.

## MUE 321 String Class II: Cello and Bass

Practical experience playing and methods of teaching cello and bass. Prerequisite: MUE 320. Cr 1.

## MUE 322 General Music Methods K-12

This course presents teaching methods used in nonperformance based music courses at the elementary, middle, and high school levels. Students will examine the methodologies of Kodaly, Orff, Dalcroze, and others and will learn to design middle school and high school general music courses. Restricted to senior music majors or by permission of instructor. Prerequisite: MUE 220.

Cr 3.

## Music Courses

## MUS 120G Music Until 1900

This course covers the history of Western music from antiquity to 1900 with special emphasis on early music. The elements of musical language and style are traced through representative composers' works. Listening, analysis, independent research, and writing are required. Music majors only or permission of the instructor.

Cr 3.

MUE 323 Secondary Choral Methods
Techniques and procedures for teaching choral music in high schools. Restricted to junior and senior music majors.

Cr 2.

## MUE 324 Instrumental Methods

The course will acquaint the instrumental music major with methods and procedures of teaching instrumental music in the public schools. Administering and organizing the program, recruiting, budgets, public relations, ensemble literature, scheduling and performance are issues addressed in the course. Discussions will focus on developing an effective instrumental music program in the public schools. Restricted to junior and senior music majors.

Cr 2.

## MUE 325 Elementary and Middle Level Choral Methods

This course will cover childhood vocal development, vocal production, choral literature, rehearsal techniques, and other topics as appropriate to working with singers in elementary and middle school. Prerequisite: MUE 220.

Cr 2.

## MUE 326 Jazz Methods

A study of methods and materials used in teaching a jazz curriculum. Topics will include and focus on rehearsal techniques, score study, performance practice, improvisation, and literature/pedagogical resources. Open to majors of junior standing. Cr 2.

## MUE 420 Marching Band Techniques

The course is designed to prepare the music educator to organize and effectively teach Marching Band in the public school. A statement of philosophy is stressed. Marching styles, execution, music developing, marching percussion, role of the drum major and effective instrument placement are emphasized in the course. Restricted to junior and senior music majors.

Cr 2.

## EDU 324 Student Teaching

Full-time student teaching during the senior year is provided for one semester under direct supervision in off-campus situations for all who meet requirements. Normally, two separate half-semester experiences designed to match the student's selected program concentration are provided which encompass both general classroom and ensemble teaching experiences. Cr 12.

## MUS 121G Classical and Romantic Music

This course covers the history of Western music from 1750 to 1900 . The elements of musical language and style are traced through representative composers' works. Listening, analysis, independent research, and writing are required. Music majors only or permission of the instructor. Cr 3.

## MUS 130F Music Theory I

This course covers scales (major and minor), keys,
intervals, and triads; identification of triads and seventh chords in inversion; principles of notation; part-writing with root position and first inversion triads; cadences; harmonization of soprano and bass lines; and phrase forms. Prerequisite: Music majors and minors only or permission of the School. Cr 3.

## MUS 130 Music Theory Lab I

A laboratory course in music theory required of those students needing additional assistance in first semester theory, as determined by the student's score on the entrance testing. To be taken concurrently with MUS 130 Music Theory I LEC. Does not count for music elective credit. Cr 2.

## MUS 131 Music Theory II

A continuation of the study of harmony, including the use of triads in second inversion; modulation; non-harmonic tones; the dominant seventh chord; other diatonic seventh chords; and simple binary and ternary forms. Prerequisite: MUS 130. Cr 3.

## MUS 132 Sight Singing and Ear Training I

A course in sight singing and ear training. Music majors and minors only, or permission of the School.

## MUS 133 Sight Singing and Ear Training II <br> A continuation of MUS 132. Prerequisite: MUS 132.

## MUS 150 Piano Class I

This is a piano class for MUE and MUP students not majoring in a keyboard instrument. Topics covered include sight-reading, basic technique, scales, chord progressions, harmonization, transposition and performance of elementary to intermediate piano literature. Prerequisite: music major status or permission of School director.

Cr 1.

## MUS 151 Piano Class II

This is a continuation of MUS 150. Prerequisite: MUS 150 or permission of School director. Cr 1.

## MUS 206 Jazz History

This course provides an in-depth examination of the historical evolution of jazz, as well as a familiarity with the major and secondary figures in the idiom. Emphasis is placed on detailed listening assignments and class discussions. Prerequisite: MUS 103G, music major status, or permission of instructor. Cr 3.

## MUS 220G Twentieth-Century Music

This course covers the history of Western music from 1900 to the present. The elements of musical language and style are traced through representative composers' works. Listening, analysis, independent research, and writing are required. Music majors only or permission of the instructor. Cr 3.

## MUS 225 World Music

This course is designed to investigate music of various cultures. The course will explore the music of
particular regions, for example, the Pacific Rim, India, and the Americas, with the intent of understanding the relationship of music to the culture in which it was created. Listening, analysis, independent research, and writing are required. Music majors only or permission of the instructor. Cr 3.

## MUS 230 Music Theory III

A continuation of the study of tonal music, including the further examination of modulation; melodic chromaticism; chromatic chords, including altered chords, chords with secondary functions, and linear chords; and composition in the simple forms of the 18th and 19th centuries. Prerequisite: MUS 131.

Cr 3.

## MUS 231 Music Theory IV

Techniques of 20th-century composition, including the study of harmony, melody, and texture. Related studies include music theory in the twentieth century, new sound resources, and new technologies. Prerequisite: MUS 131.

Cr 3 .
MUS 232 Sight Singing and Ear Training III
An advanced course in sight singing and ear training. Prerequisite: MUS 133 . Cr 1.

MUS 233 Sight Singing and Ear Training IV
A continuation of MUS 232. Prerequisite: MUS 232.

Cr 1.

## MUS 240 Instrumental Conducting Lab

Performance techniques on instruments of primary and/or secondary interest to each student. Principles of ensemble training are exemplified. Cr 0.5 .

## MUS 241 Choral Conducting Lab

Performance techniques in a choral ensemble. Principles of ensemble singing and training of choral ensembles are exemplified.

Cr 0.5.

## MUS 244 Basic Conducting

Practical conducting experiences; score reading, basic beat patterns, gestures, and interpretation. Prerequisite: MUS 230.

Cr 2.

## MUS 250 Piano Class III

This is a continuation of MUS 151. Prerequisite: MUS 151 or permission of School director. Cr 1.

## MUS 251 Piano Class IV

This is a continuation of MUS 250. Prerequisite: MUS 250 or permission of School director. Cr 1.

## MUS 252 Jazz Piano Class I

This is a jazz piano class for MUP Jazz Studies Concentration students not majoring in a keyboard instrument, as well as non-jazz keyboard majors and other instrumentalists who meet the prerequisite. Topics covered include chord voicings for the ii-v-i progression, arrangements of standard tunes, jazz scales and modes and accompanimental styles. Prerequisite: MUS 151 or permission of School director.

Cr 1.

## MUS 253 Jazz Piano Class II

This is a continuation of MUS 252. Prerequisite: MUS 252 or permission of School director. Cr 1.

## MUS 255 Guitar

An introduction to basic guitar skills. Emphasis is placed upon those skills that lead to playing effective accompaniments.

Cr 1.

## MUS 256 Diction for Singers I: Italian and French

A study in the principles of Italian and French diction through the use of the International Phonetic Alphabet (IPA). An application of these basic principles to vocal literature through written, singing, and aural transcription exercises. Prerequisite: music major or instructor permission.

Cr 3 .

## MUS 257 Diction for Singers II: French and German

A continuation of study in the principles of French diction and the principles of German diction through the use of the International Phonetic Alphabet (IPA). An application of these basic principles to vocal literature through written, singing, and aural transcription exercises. Prerequisite: MUS $256 . \quad$ Cr 3.

## MUS 310 Organ Improvisation I

This course will cover the basics of improvisation at the organ. The goal is to equip the student with the skills needed in church situations. Hymns, chorales, and plainsong melodies will form the basis for learning to improvise preludes, postludes, and interludes in a variety of styles. This course will be scheduled as an additional applied music time with an organ specialist. Prerequisite: MUS 131 or permission of instructor.

Cr 1.

## MUS 311 Organ Improvisation II

This course is the continuation of MUS 310. It will be scheduled as an additional applied music time with an organ specialist. Prerequisites: MUS 131 and MUS 310, or permission of instructor. Cr 1.

## MUS 320 Seminar in Music History

A concentrated study of selected topics in music history based on individual research. Prerequisite: MUS $120,121,220,225$. For music majors or minors. Others only with permission of instructor.

Cr 3.

## MUS 321 Literature of the Major Instrument

A survey of the literature for voice or a specific instrument. Except for piano or voice, which are offered in class sessions when the number of registrants warrants it, this will be scheduled as private study. Normally the piano and voice sessions will be offered in alternate years. For performance majors. Other music majors only with permission of the School.

Cr 2.

## MUS 330 Form and Analysis

Study and analysis of music of the classical, romantic, and contemporary periods with emphasis on
homophonic forms and styles. Prerequisite: MUS 230.

Cr 3.

## MUS 332 Counterpoint

Analysis and writing of tonal counterpoint. Emphasis is given to the study of canon, invention, fugue, chorale prelude, and continuous variations, using eighteenth-century works as models for composition. Prerequisite: MUS 230.

Cr 3.

## MUS 333 Advanced Analysis of Tonal Music

This course will cover several analytical approaches to tonal music, including parametric analysis, the analysis of phrase rhythm and hypermeter, and Schenkerian analysis. Prerequisite: MUS 330. Cr 3.

## MUS 335 Advanced Aural Skills

This course will be an in-depth continuation of MUS 233 Sight Singing and Ear Training IV. It will emphasize the development of aural skills through the use of contextual listening examples and performance drills. Both tonal and non-tonal music will be used as study material. Prerequisite: MUS 233.

Cr 3 .

## MUS 337 Jazz Arranging

Study and analysis of music written for small and large jazz ensembles. Practice in writing for a variety of instrumental combinations in the jazz idiom. Prerequisite: MUS 230 or permission of instructor.

Cr 3.

## MUS 340 Instrumental Conducting Lab

Performance techniques on instruments of primary and/or secondary interest to each student. Principles of ensemble training are exemplified. The repertoire consists of selections from various periods and styles and is varied from year to year in order to cover a considerable range during the student's attendance.

Cr 0.5.

## MUS 341 Choral Conducting Lab

Emphasizing singing technique and interpretation and an exploration of choral literature of various periods and styles. Principles of choral training are exemplified. The repertoire is varied from year to year so that the course covers a considerable range during a given student's attendance. Cr 0.5 .

## MUS 344 Instrumental Conducting

Advanced development of non-verbal gestures through the art of instrumental conducting. Score reading analysis, rehearsal techniques and performance preparation. Prerequisite: MUS 244. Cr 2.

## MUS 345 Choral Conducting

Advanced development of non-verbal gestures through the art of choral conducting. The course includes score study analysis, rehearsal techniques, and performance preparation. Prerequisite: MUS 244.

Cr 2.

## MUS 350 Voice Class I

This course covers the fundamentals of vocal pro-
duction for the beginning singer, including breath management and tone development, studied through the use of vocalizations and songs. Prerequisite: music major status or permission of School director.

Cr 1.

## MUS 351 Voice Class II

This is a continuation of MUS 350. Prerequisite: MUS 350.

Cr 1.

## MUS 360 Advanced Keyboard Skills I

This course provides practical instruction in the advanced keyboard skills of score reading, transposition, harmonization of melodies, and realization of continuo. These performance skills will be taught with emphasis on the preparation of examples outside the class as well as the active participation by students in class. Prerequisite: keyboard performance major and MUS 131, or permission of instructor.

Cr 2.

## MUS 361 Advanced Keyboard Skills II

The second semester continuation of Advanced Keyboard Skills I. Prerequisite: MUS 360. Cr 2.

## MUS 370 Topics in Music Technology

An intensive study of one or more areas of music technology in the context of producing music compositions, creating pedagogical multimedia applications, performing music with interactive applications, or recording and editing digital audio/video. The area of study will be chosen by the instructor in accordance with his or her expertise and interests. The course may be repeated once for credit as topics vary (limit of six credits). Prerequisite: MUS 231 or permission of the instructor.

Cr 3.

## MUS 372 Pedagogy of the Major Instrument

A study of the teaching methods and materials for voice or instruments. Except for piano and voice, which are offered in class sessions when the number of registrants warrants it, this will be scheduled as additional applied music time with an instrumental specialist. Normally the piano and voice sessions will be offered in alternate years. For performance majors. Other music majors only with permission of the School.

Cr 2.

## MUS 373 Piano Pedagogy II

This course is the second-semester continuation of MUS 372 in piano. The course focuses on the teaching of child beginners. Students observe a weekly group lesson, research and prepare repertoire and lesson plans, and evaluate their peers' teaching. Each student teaches at least one group lesson. Prerequisite: MUS 372 in piano, piano major or permission of instructor.

Cr 2.

## MUS 374 Jazz Pedagogy

A study of the teaching methods and materials in the jazz performance area. Emphasis will be placed on large and small jazz ensemble literature and conducting techniques, jazz improvisation pedagogical
techniques, and writing techniques. This course will also address the topic of securing and maintaining employment within the jazz field. Prerequisite: open to music majors of junior standing.

Cr 2.

## MUS 376 Class Piano Teaching I

This course provides an overview of teaching group piano to adult beginners. Students spend the semester observing the teaching of Piano Class I (MUS 150) and meet weekly with the teacher for discussion and additional instruction. Prerequisite: Two semesters of MUP 202 or 203; piano major or permission of instructor.

Cr 2.

## MUS 377 Class Piano Teaching II

This course is the second-semester continuation of Class Piano Teaching I. Students observe the teaching of Piano Class II (MUS 151) and meet with the teacher weekly for discussion and additional instruction. Students have the opportunity to teach the class under the instructor's supervision. Prerequisite: MUS 376. Restricted to piano majors.

Cr 2.

## MUS 378 Practicum in Piano Pedagogy I

This course provides practical teaching experience in individual piano instruction. Under the supervision of piano pedagogy faculty, students teach private lessons to three or four child beginners. Students also observe piano lessons given by master teachers and do outside readings and research. Prerequisite: MUS 373, four semesters of MUP 202 or 203; piano major or permission of instructor.

Cr 3.

## MUS 379 Practicum in Piano Pedagogy II

This course is the second-semester continuation of MUS 378. Prerequisite: MUS 378.

Cr 3.

## MUS 380 Jazz Improvisation I

A course designed to teach the student to improvise in the jazz idiom. Studies include jazz theory and standard jazz literature. Recommended for instrumental music majors. Prerequisite: MUS 131 or permission of the instructor. Cr 3.

## MUS 381 Jazz Improvisation II

A performance course designed to expand upon the improvisation principles presented in Jazz Improvisation I. Students will learn advanced jazz theory and use that knowledge to perform in the jazz language both in class and in lab situations. Prerequisite: MUS 380 or the equivalent. Cr 3.

## MUS 420 Orchestration

A study of the nature of the various instruments. Practice in scoring for instrumental combinations, orchestra, and band. Prerequisite: MUS 231. Cr 3.

## MUS 442 Recital Class

Performance in major field, stage deportment, and evaluation of performances. May be repeated. Cr 0 .

## MUS 497 Directed Study in Composition

To provide juniors and seniors who have demon-
strated creative capability an opportunity to compose utilizing twentieth-century techniques. Prerequisite: MUS 231 and permission of instructor. Cr 1-3.

MUS 498 Independent Study in Music
To provide juniors and seniors who have demon-
strated critical and analytical capability an opportunity to pursue a project independently, charting a course and exploring an area of interest within their major field. Music majors only. School permission required. Cr 1-3.

# Philosophy 

Chair of the Department: Kathleen J. Wininger, 47 Exeter St., Portland Professors: Caffentzis, Gavin, Louden, Murphy; Associate Professors: Conway, Wininger; Assistant Professor: Read; Professors Emeritus: Schwanauer, Grange
"Philosophy unties knots in our thinking; hence its results must be simple, but philosophizing has to be as complicated as the knots it unties." Ludwig Wittgenstein, Zettel \#452

The place of philosophy at the center of any educational endeavor is as true today as it ever was. The perennial questions that philosophy addresses, such as "Who am I as a human being?, How should I act?, What can I know?, What are my obligations to others?, How should society be organized?" are fundamental issues with which education must wrestle and into which it must provide insight. Philosophy is a reasoned pursuit of fundamental truths. It is a systematic investigation of the key assumptions that underlie our thinking and which ordinarily are taken for granted. Much of what is learned in philosophy can be applied in virtually any endeavor. This is both because philosophy touches upon so many subjects and, especially, because many of its methods and analyses are usable in any field. The study of philosophy is beneficial in terms of achieving the following:

General Problem-Solving Ability The study of philosophy enhances one's prob-lem-solving capacities in a way no other activity does. It helps one to analyze concepts, definitions, arguments, and problems. It contributes to one's capacity to organize ideas and issues, to deal with questions of value, and to extract what is essential from masses of information.

Communication Skills Philosophy provides some of the basic tools of selfexpression, namely, skills in presenting ideas through well-constructed, systematic arguments. One learns to build and defend one's own views, to appreciate competing positions.

Writing Skills Writing is an important part of most philosophy courses. Philosophy teaches interpretive writing through its examination of challenging texts, comparative writing through emphasis on fairness to alternative positions, argumentative writing through developing students' abilities to establish their own views, and descriptive writing through detailed portrayal of concrete examples, the anchors to which generalizations must be tied.

The Understanding of Other Disciplines Many important questions about a discipline, such as the nature of its concepts and its relation to other disciplines, do not belong to that discipline, are not usually pursued within a discipline, and are philosophical in nature. Philosophy of science, for instance, is needed to supplement the understanding of the natural and social sciences which one derives from scientific work itself. Philosophy of art, social and political philosophy, the philosophy of religion are of similar value in understanding the respective fields of art, sociology, politics, and religion.

## Career Applications

Philosophers know, of course, that the important question is not what you can do with a field of study but rather what a field of study does with you. Nevertheless, it has been a welcome surprise within recent years to witness how many professions-business, law, nursing, for example, want and reward many of the capacities that the study of philosophy develops: the ability to solve problems, to communicate, to organize ideas and issues, to assess pros and cons, and to reduce complex data. These capacities represent transferable skills. For this reason, people trained in philosophy are not only prepared to do many kinds of tasks, they can also cope with change, or even move into new careers, more readily than others.

## Student Involvement

Student participation in the philosophical activities of the philosophy program is strongly encouraged. Students have organized a Philosophy Majors and Minors Association which provides a forum for students to discuss their philosophical work. This Philosophy Symposium also facilitates communication between faculty and students and ensures student involvement in Departmental deliberations. In recent

## Programs and Requirements

years the Philosophy Symposium has invited guest lecturers on a variety of philosophical topics. This has enabled students to meet a broad range of philosophers including international guests.

## Bachelor of Arts in Philosophy

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 36 .

Each major in philosophy will arrange a program of courses in conference with the chair or a member of the department who is assigned as the student's advisor. The program will be designed in terms of the student's interests, needs, vocational plans, and the year in which the student declares a major. The major will require 36 hours of courses beyond a PHI 100-level course. Any introductory philosophy course is a prerequisite to all other courses in philosophy.

All philosophy majors must take four history of philosophy courses. Two of these, which need not be taken in sequence, must be PHI 310I (Ancient Philosophy) and PHI 330 (Early Modern Philosophy). Thereafter, any two additional courses in the history of philosophy may be taken. These courses are PHI 312I, PHI 315I, PHI 320I, PHI 340I, PHI 350I, PHI 360I, PHI 370I, PHI 380I, PHI 390I.

In the last year a senior thesis (PHI 410) is optional. This thesis consists of a major paper (minimum length: 50 pages) on a topic selected by the student and directed by one member of the Department. The student will meet with the mentor on a regular basis during the semester of the senior thesis. Upon completion of the paper, an oral examination will be conducted by the full Department. Upon successful completion of the senior thesis and with a cumulative GPA of 3.5 or higher in the major at the completion of required coursework, a student will receive honors in philosophy for graduation. If the thesis (formerly tutorial) option is not taken, students must complete a Seminar in Philosophy (PHI 400). Students may take both the Seminar in Philosophy (PHI 400) and the Senior Thesis (PHI 410).

Philosophy majors who are enrolled in the Honors Program may allow their 3- to 6-hour Honors Independent Tutorial (HON 311-HON 312) to be equivalent to the Senior Tutorial (PHI 410) and count toward the completion of their degree in philosophy, provided that the thesis addresses a philosophical topic and is mentored by a philosophy faculty member. The required thesis defense will involve both Philosophy Department faculty and that of the Honors Program.

Every major intending to pursue graduate study and teach in philosophy will be expected to take German or French through the intermediate level. German is preferred to French, although ideally both sets of courses should be taken. All majors are encouraged to take PHI 205 Symbolic Logic.

The gender-neutral language policy of the Department prohibits the use of sexist language in classes, course materials, and at Departmental events.

## Minor in Philosophy

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 15 .

Students who wish to pursue a minor in philosophy are required to take five courses beyond any PHI 100 course. These must include two courses in the history of philosophy: PHI 310I, PHI 312I, PHI 315I, PHI 320I, PHI 330I, PHI 340I, PHI 350I, PHI 360I, PHI 370I, PHI 380I.

## PHI 102E Introduction to Philosophy: The Quest for Certainty

Philosophy has often been defined as the attempt to become aware of the hidden assumptions we make in our everyday outlooks on life. The present course will deal with one of the most pervasive of these assumptions-the thesis that human beings should pursue certainty and objectivity at any price. The history of philosophy will be utilized to trace and to criticize the identification of all true knowledge with certainty. Questions will be raised as to whether the quest for certainty is either feasible or beneficial to the human person. An analysis of some 20th-century alternatives, such as existentialism and pragmatism, will be undertaken. Prerequisite: Core Area C or concurrent.

Cr 3.

## PHI 105E Introduction to Philosophy: Philosophy Through Its History

An introduction to philosophy through its history and development, i.e., through an examination of central texts in the history of philosophy, up to and including contemporary works. Specific readings may vary from semester to semester, but will always include some canonical works by classic Western philosophers (e.g., Plato, Aristotle, Descartes, and Kant). Prerequisite: Core Area C or concurrent.

## PHI 106E Introduction to Philosophy: Why Philosophize?

The course centers about the exploration of a single question: what it means to think philosophically. In the context of this question, we will examine what are the sources of philosophical thought and whether philosophy can justify its claim to be the foundation of all reflective endeavor. Prerequisite: Core Area C or concurrent.

Cr 3.

## PHI 107E Introduction to Philosophy: World Philosophy

This course presents the world views of philosophers from ancient to contemporary times. The thinkers will be chosen from a broad range of cultural and ethnic backgrounds. Emphasis will be placed on the wide diversity and historical background of philosophical positions. Prerequisite: Core Area C or concurrent.

## PHI 109E Introduction to Philosophy: Law, Politics and Society

This course examines the traditional political questions that face every society: Who should rule? What should the rules be? Why should the rules be obeyed? The approach is largely historical, emphasizing the answers that major philosophical figures have offered to these questions. The relevance of these historical answers to current social issues is addressed using a number of contemporary topical readings. Prerequisite: Core Area C or concurrent. Cr 3.

## PHI 110E Introduction to Philosophy: Gender and Society

To what extent are social norms influenced by
assumptions about sex and gender? The course examines philosophical arguments on topics such as masculinity, femininity, sexualities, war, religion, fatherhood, motherhood, abortion, gay marriage, and politics: Prerequisite: Core Area C or concurrent.

Cr 3.

## PHI 111E Introduction to Philosophy: Philosophical Reading (and Writing)

This course aims to teach the student a particular skill: philosophical reading (and writing). On the most immediate level this will be a course in reading (and writing about) philosophical texts. The texts will give the student a sense of the immense history, wealth, and suggestibility of philosophical writing, its various genres, and its authors. On another level, the course will teach the skill of reading (and writing) philosophically. Any piece of writing can be read (and written about), with profit, philosophically. The second skill and its profit cannot be acquired without first studying the first, thus the bulk of the course will focus on reading (and writing about) philosophy texts philosophically. About one month will be devoted to the reading of each book. Prerequisite: Core Area C or concurrent.

Cr 3 .

## PHI 112E/W Introduction to Philosophy: Feminist Perspectives

To what extent do cultural assumptions about gender shape a society's notion of rationality and justice? The course explores this question by examining feminist critiques of Western philosophy along with a selection of contemporary anti-sexist and anti-racist theories of social life. Core Area C or concurrent. Writing intensive course. Cr 3.

## PHI 200 Metaphysics

An analysis of various theories of reality, together with a critical examination of their conceptual constructs, principles and methodologies. Issues to be discussed include change, time, freedom and necessity, immortality and God, good and evil. Thinkers to be studied include Plato and Aristotle, Spinoza, Kant, Hegel, Whitehead, and Heidegger. Prerequisite: any PHI 100-level course. Cr 3.

## PHI 205 Symbolic Logic

Techniques of modern deductive logic; properties of formal systems; logical implications and paradoxes of language. Prerequisite: any 100-level philosophy course.

Cr 3.

## PHI 210 Ethical Theories

Critical evaluation of major ethical theories and systems. Extensive reading in original texts. Analysis of contemporary ethical issues. Prerequisite: any PHI 100-level course.

Cr 3 .

## PHI 211 Media Ethics

In the information age, media play an increasingly large role in our lives. Our notion of living in a global society is largely shaped by media. What is responsible journalism? Does violent programming
contribute to violence in America? What are professional ethics and how should they guide media practitioners? We will discuss these questions by examining key ethical values in media such as: privacy, confidentiality, truth telling, conflicts of interest, and social responsibility. We will also explore some fundamental issues in ethical theory such as: Why be ethical? What is ethics? How do ethical theories differ? What are the best ways to evaluate and apply ethical theories to media controversies today? The course is designed for majors in philosophy, media studies, and communication as well as other interested students.

Cr 3.

## PHI 212 Environmental Ethics

This course analyzes the relations between human beings and the environment in terms of the concepts of justice, the good, and human responsibilities. It attempts to provide a new cosmological model for adjudicating between conflicting rights and duties. Issues to be discussed include animal rights, environmental protection, and ecological harmony. Prerequisite: any PHI 100-level course. Cr 3.

## PHI 215 Philosophy of Literature

While many cultures accord a vital role to stories, myths, and poetry in the cultivation of wisdom, traditional European philosophy has tended to marginalize them. This course seeks to investigate the historical roots for this separation between philosophy and literature in European thought. It will then consider the perspectives of several contemporary thinkers (e.g., Robert Coles, Michael Ende, Martha Nussbaum, and Martin Heidegger) who are convinced that literature plays an indispensable role in the pursuit of wisdom. Prerequisite: any PHI 100level course.

Cr 3.

## PHI 220 Philosophy of Art

What makes a person creative? What do artists think about their art? How do critics evaluate a work? If art is created for a cultural ritual or healing, is it to be understood differently? How do the circumstances of a work's creation and reception affect its evaluation? How does a person's class, ethnicity, or gender influence art work and its reception? Philosophers in the field of aesthetics attempt to answer questions which artists, art historians, anthropologists, and critics ask about art. The works of art and philosophy considered will be draw from a wide variety of cultural contexts. Prerequisite: any PHI 100-level course.

Cr 3 .

## PHI 221 Philosophy of Film

This course concentrates on the construction of meaning in the context of cinema. Major emphasis is placed on cinema as a product of social construction. Issues to be discussed include perception, memory, images, and the use of social stereotypes. Prerequisite: any PHI 100-level course.

Cr 3.

## PHI 225 Philosophy of Mind

An analysis of the major philosophical issues facing
the science of psychology: language and the unconscious, body-mind interaction, freedom and determinism. Major figures to be studied include Plato, Aristotle, Spinoza, Freud, Merleau-Ponty, Lacan, and Skinner. Thematic emphasis will be on the historic interaction between psychology and philosophy in the development of Western thought. Prerequisite: any PHI 100-level course.

Cr 3.

## PHI 230 Philosophy of Religion

Analysis of the nature of religious experience, knowledge, and language. Special attention given to problems, classical and contemporary, exhibited in religious experience and relevant to areas of common concern in the sciences, humanities, and philosophy. Prerequisite: any PHI 100-level course. Cr 3.

## PHI 240 Political Philosophy

Critical evaluation of political philosophies, classical and contemporary; extensive reading in original texts; analysis of contemporary political issues. Prerequisite: any PHI 100-level course.

Cr 3.

## PHI 250 Philosophy of Science

An examination of two different models generally used in approaching scientific activity philosophically: the logical model and the historical model. Questions to be raised include whether these two approaches are mutually exclusive or whether one can subsume the other, and at what cost. Issues to be covered include description vs. explanation; scientific vs. non-scientific explanation; the issue of whether to include pragmatic and psychological dimensions of meaning in scientific explanations; the question of whether all facts are "theory-laden"; and the relationship between facts, laws, and theories in science. Prerequisite: any PHI 100-level course.

Cr 3.

## PHI 260 Philosophy of Law

Critical evaluation of select issues in the philosophy of law. Possible topics include: the nature of law (positivism, natural law, legal realism); judicial decision making; constitutional adjudication; the justification of punishment; the legal enforcement of morality; legal responsibility; the judicial system. Readings are drawn from the disciplines of both philosophy and law, and include contemporary as well as historical selections. Prerequisite: any PHI 100-level course.

Cr 3.

## PHI 265 Philosophy and Gender

The course explores the contributions of feminist philosophers to gender analysis. It will examine the philosophical assumptions inherent in theories of gender difference that arise in sociobiology, biological determinism, physiology, and the social construction perspective. Assumptions about gender will be studied in some of the following areas: violence, war, religion, reproduction, family, sexualities, and sport. Prerequisite: any PHI 100-level course.

Cr 3.

## PHI 270 Epistemology

An analysis of various theories of knowledge in reference to their methodologies and consequences. Texts to be read include Berkeley, Hume, Descartes, Kant, and Hegel. Prerequisite: any PHI 100-level course.

Cr 3.

## PHI 275 The Nature of Compassion

Whether and how we respond to the suffering of others defines, in many ways, who we are as persons and communities. This course is an investigation into the emotion of compassion and its social role. Drawing upon a wide variety of sources such as Greek tragedy, Buddhist scriptures, classical and contemporary philosophical thought, it will address philosophical defenders of the need to cultivate compassion (Rousseau, Schöpenhauer, and Adam Smith) as well as thinkers suspicious of this notion (Nietzsche, e.g.). The work of contemporary philosophers-Phillip Hallie and Martha Nussbaum - will also receive close attention. Students will have the chance to think through some important philosophical issues, such as the role of the emotions in moral deliberation, the extent to which compassion can be both aided and obstructed by the use of language, and whether there are appropriate limits to compassion.

Cr 3 .

## PHI 290 Problems in Philosophy

Consideration of selected problems or systems of philosophical significance, including general problems of metaphysics, epistemology, axiology, specialized areas, etc. May be repeated for credit. Prerequisite: any PHI 100-level course. Cr 3.

## PHI 291 Death and Dying

Recent success in life-prolonging techniques has resulted in the creation of new disagreements over the proper definition of death. Which definition of death is the most adequate? Some have argued that dying, not death, is the vitally important topic. Has the term death changed its meaning from time to time and place to place in human history? This course will deal with these and similar epistemological issues. Prerequisite: any PHI 100-level course.

Cr 3.

## PHI 295 Medicine, Madness, and Disease

Recent advances in modern medicine and medical technology challenge traditional notions of health, sanity, and the social order. The course will examine some of the controversial ethical dilemmas that patients, families, and health care providers confront, such as informed consent, truth-telling, prenatal screening, abortion, involuntary commitment for the mentally ill, drug testing, and patient rights. The course will critique the assumptions behind these and other medical practices. Prerequisite: any PHI 100 -level course.

Cr 3 .

## PHI 310I History of Ancient Philosophy

Philosophic thought from the pre-Socratics to the late Hellenistic period, with major emphasis on Plato and Aristotle. Prerequisite: any PHI 100-level course.

Cr 3.

PHI 312I Women Philosophers from Africa and the Diaspora
This course concentrates on the work of women of wisdom who are of African origin. Intellectual and literary movements will be examined through generations of thinkers in various national, religious, cultural, and geographical settings. Writings from the diaspora and Egypt, Ghana, Nigeria, South Africa and Kenya. Prerequisite: PHI 100-level course.

Cr 3.

## PHI 315I Eastern Philosophy

This course examines the major texts of the great Asiatic religions: Hinduism, Buddhism, Confucianism, Taoism, and Zen. Special emphasis is placed on the ethical and metaphysical dimensions of these traditions as well as their significance for contemporary theories of the person, social justice, and human fulfillment. Prerequisite: any PHI 100-level course.

Cr 3.

## PHI 320I History of Medieval Philosophy

The merger of the philosophic with the religious stream; ideas of Augustine, Thomas Aquinas, Bonaventure, and others critically examined; determining cultural factors explored. Prerequisite: any PHI 100-level course.

Cr 3 .

## PHI 330I History of Early Modern Philosophy: Descartes to Kant

Main currents of rationalism and empiricism are explored, as developed in major writings from Descartes to Kant. Prerequisite: any PHI 100-level course.

Cr 3.

## PHI 340I History of Late Modern Philosophy

Development of German idealism; emergence of social and scientific philosophies; contributions of Kant, Hegel, Marx, Schopenhauer, Nietzsche, Feuerbach, and others. Prerequisite: any PHI 100level course.

Cr 3.

## PHI 350I American Philosophy

History and background of the origin of philosophical ideas in America; particular emphasis given to Peirce, James, Royce, Dewey. Prerequisite: any PHI 100-level course.

Cr 3.

## PHI 360I Existentialism

An examination of the historical development and basic themes of existentialism as found in the writings of its major representatives: Kierkegaard, Nietzsche, Heidegger, Sartre, Buber, Marcel, and others. Prerequisite: any PHI 100-level course. Cr 3.

## PHI 370I Analytic Philosophy

An historical approach to twentieth-century linguistic philosophy. This course will begin with logical atomism, continue through the era of logical positivism, and end with ordinary language analysis. Extensive reading of primary sources and major commentators. Prerequisite: any PHI 100-level course.

Cr 3.

## PHI 380I Postmodernism

The course presents a survey of central movements within continental philosophy in the 20th century: phenomenology, structuralism, hermeneutics, and deconstruction. Possible figures of study are: Foucault, Derrida, Levinas, Gadamer, Barthes, Lacan, Irigary, Cixous, and Lyotard. Prerequisite: any PHI 100-level course.

Cr 3.

## PHI 390I Hermeneutics

How do we go about interpreting something that is foreign to us? What does it mean to understand a person or a text? Hermeneutics is a tradition of philosophical inquiry into the dynamics of interpretation and understanding. The course examines the historical roots of hermeneutics in the works of Friedrich Schleiermacher and Wilhelm Dilthey, and it proceeds with the close analysis of several 20th century thinkers-for example, Hans-Georg Gadamer and Martin Heidegger-whose works extend and develop the hermeneutical tradition. Prerequisite: any PHI 100-level course. Cr 3.

## PHI 398 Independent Study

This course provides students with an opportunity to design a set of readings and learning objectives concerning a topic in the history of philosophy or a specific issue in philosophy. Students must complete an independent study proposal, and obtain permission of a faculty mentor and the Department chair. Students must meet regularly with the faculty men-
tor. May be repeated for credit. Prerequisite: a minimum of two 300 -level philosophy courses plus written permission of the instructor involved. Cr 3.

## PHI 400 Seminar in Philosophy

This is a seminar course dealing with a specific topic or person in philosophy. Topics or individual philosophers will change from year to year and the course may be repeated for credit. The prerequisite for any 400 -level seminar course is two (2) 300level courses in philosophy, or permission of the instructor.

## Cr 3 .

## PHI 409 Research Seminar

A research seminar designed to provide senior level students an opportunity to participate in the research efforts of individual faculty and collaborate with each other in the design, methodology and completion of their tutorials. Prerequisites: advanced standing as a philosophy major and permission of the Department.

Cr 3 .

## PHI 410 Senior Thesis

Designed to furnish senior philosophy majors with extensive training, under tutorial supervision, in analysis of a philosophical problem or system or philosopher, with a view to producing and presenting a senior paper for oral defense. Prerequisites: advanced standing as a philosophy major and permission of the Department. Cr 3.

## Physics

Chair of the Department: Jerry LaSala, 229 Science Building, Portland Professor: LaSala; Associate Professors: Coakley, Nakroshis; Assistant Professor: Ziffer

The field of physics is concerned with the study of matter, energy, motion, and the interaction of material particles. It is a cornerstone science that attempts to explain at a fundamental level the concepts underlying phenomena important to the other physical sciences, to the biological sciences, and to engineering. The Physics Department provides elementary courses to introduce students to the field, general and topical courses that support the other science departments and engineering, and a four-year program leading to a B.A. degree in physics. The physics major covers the traditional areas of modern and classical physics, and is intended to prepare graduates for careers in physics and related technical areas or for graduate school.

## Programs and Requirements

## Bachelor of Arts in Physics

The minimum number of credits in physics and related areas (exclusive of the University's Core curriculum) required for the physics major: 61. A student majoring in physics must take 37 credit hours of physics courses including some requirements and some electives as outlined below. In addition, the major requires 16 credits of mathematics courses, 8 credits of chemistry courses, and a demonstration of competency in computer programming.

| 1. Required courses |  |  |
| :--- | :--- | :--- |
| PHY | $114 \mathrm{~K}, 116$ | Introductory Physics Laboratory I and II |
| PHY | $121 \mathrm{~K}, 123$ | General Physics I and II (PHY 111K may replace |
|  |  | PHY 121K with Departmental permission.) |
| PHY | 211,213 | Nonclassical Physics I and II |
| PHY | $221,223,225$ | Classical Physics I, II, and III |
| PHY 240 | Intermediate Laboratory I |  |
| CHY 373 | Physical Chemistry II |  |

2. Electives. In addition to the required courses, the student must take a minimum of 6 credits of physics courses numbered 200 or higher: three credits from each of groups A and B below.

Group A

| PHY | 251 | Principles of Electronics |
| :--- | :--- | :--- |
| PHY | 261 | Computational Physics |
| PHY | 281 | Astrophysics |
| PHY | 375 | Optics |
| Group B |  |  |
| PHY | 242 | Intermediate Laboratory II |
| PHY | 311 | Quantum Mechanics |

The physics major must also complete the following courses:

| MAT | 152 D | Calculus A |
| :--- | :--- | :--- |
| MAT | 153 | Calculus B |
| MAT | 252 | Calculus C |
| MAT | 350 | Differential Equations |
| CHY | 113 K \& 114K | Principles of Chemistry I with Lab |
| CHY | $115 \& 116$ | Principles of Chemistry II with Lab |

Suggestions for demonstrating competency in computer programming include:
COS 160 \& $170 \quad$ Structured Problem Solving: Java
COS 141 Visual Basic
PHY 261 Computational Physics
To graduate as a physics major, a student must maintain a minimum GPA of 2.0 in all courses which satisfy the major requirement, and a minimum overall GPA of 2.0.

## Minor in Physics

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 19. The required courses are PHY $121 \mathrm{~K}, 123$ or PHY 111 K , 112; PHY 114K, 116; PHY 211, PHY 240; at least 3 credits of physics courses numbered 200 or higher.

## PHY 101K Introduction to Physics

An elementary approach to the study of mechanics, heat, sound, electricity, magnetism, light, and modern physics, intended for the student who desires a one-semester introduction to the subject with emphasis on concepts as opposed to problem solving. Students desiring laboratory work should also register for PHY 102K. Students planning to major in any of the natural sciences are not directed to this course but rather to a more advanced introductory course. Prerequisite: high school algebra. Cr 3.

## PHY 102K Introduction to Physics Laboratory

Laboratory experiments and additional material designed to supplement the topics considered in PHY 101K. Prerequisite: concurrent registration in PHY 101 K or permission of the instructor. Cr 1.

## PHY 111K Elements of Physics I

The first of a two-semester non-calculus sequence in introductory physics, intended particularly for life-science majors. Topics to be covered include mechanics, waves, sound, and thermal physics. Lectures, demonstrations, and problem solving will help the student develop an understanding of physical phenomena. Mathematical treatment is at the level of algebra and trigonometry. This course is not recommended for students planning to major in the physical sciences or engineering. It should be taken concurrently with PHY 114K, Introductory Physics Laboratory I. Prerequisite: successful completion of the University's minimum proficiency requirement in mathematics. Three hours of lecture and one hour of recitation per week.

Cr 4.

## PHY 112 Elements of Physics II

A continuation of PHY 111K, intended particularly for life-science majors. Topics to be covered include electricity, magnetism, optics, and modern physics. Lectures, demonstrations, and problem solving will help the student develop an understanding of physical phenomena. Mathematical treatment is at the level of algebra and trigonometry. This course is not recommended for students planning to major in the physical sciences or engineering. It should be taken concurrently with PHY 116, Introductory Physics Laboratory II. Prerequisite: PHY 111K or equivalent. Three hours of lecture and one hour of recitation per week.

Cr 4.

## PHY 114K Introductory Physics Laboratory I

Experiments designed to illustrate the concepts studied in PHY 111 K and PHY 121K. Prerequisite: concurrent registration in PHY 111 K or 121 K . Two hours per week.

Cr 1.

## PHY 116 Introductory Physics Laboratory II

Experiments designed to illustrate the concepts studied in PHY 112 and PHY 123. Prerequisite: concurrent registration in PHY 112 or PHY 123. Two hours per week.

Cr 1.

## PHY 121K General Physics I

The first of a two-semester sequence introducing the
fundamental concepts of physics, using calculus. Topics to be covered include mechanics, waves, sound, and thermal physics. This course is recommended for students who plan further study in physical sciences, mathematics, or engineering. It should be taken with PHY 114K, Introductory Physics Laboratory I. Prerequisite: prior or concurrent registration in MAT 152D or equivalent experience. Three hours of lecture and one and one-half hours of recitation per week. Cr 4.

## PHY 123 General Physics II

A continuation of PHY 121 K , introducing the fundamental concepts of physics, using calculus. Topics to be covered include electricity, magnetism, and light. This course is recommended for students who plan further study in physical sciences, mathematics, or engineering. It should be taken concurrently with PHY 116, Introductory Physics Laboratory II. Prerequisites: PHY 121 K or equivalent and one semester of calculus. Three hours of lecture and one and one-half hours of recitation per week.

Cr 4.

## PHY 211 Nonclassical Physics I

The first of a two-semester sequence covering the principal topics which show the departure of physics from its classical roots. Topics will include relativity and atomic structure. Prerequisite: PHY 123 or PHY 112, and MAT 152D.

Cr 3.

## PHY 213 Nonclassical Physics II

A continuation of PHY 211, covering the principal topics which show the departure of physics from its classical roots. Topics will include quantum physics, nuclear physics, and particle physics. Prerequisite: PHY 211.

Cr 3.

## PHY 221 Classical Physics I

The first of a three-semester sequence offering an intermediate-level treatment of the principal topics of classical physics. The focus for this course is mechanics, including particle motion, oscillations, and noninertial reference systems. Prerequisite: PHY 121 K and prior or concurrent registration in MAT 252.

Cr 3.

## PHY 223 Classical Physics II

A continuation of PHY 221, offering an intermediatelevel treatment of the principal topics of classical physics. This course will continue a study in mechanics and start a study in electrostatics. Prerequisite: PHY 123, PHY 221, and MAT 252.

Cr 3.

## PHY 225 Classical Physics III

A continuation of PHY 223, offering an intermedi-ate-level treatment of the principal topics of classical physics. Topics will continue through magnetism and electrodynamics, leading to Maxwell's equations. Prerequisite: PHY $223 . \quad \mathrm{Cr} 3$.

## PHY 240 Intermediate Laboratory I

A selection of experiments designed to illustrate the
more important principles of classical and modern physics. Prerequisites: prior or concurrent registration in a 200-level physics course and two semesters of calculus. Six hours per week.

Cr 3 .

## PHY 242 Intermediate Laboratory II

A selection of experiments illustrating the important principles of classical and modern physics. Prerequisite: prior or concurrent registration in a 200 -level physics course and two semesters of calculus.

Cr 3.

## PHY 251 Principles of Electronics

An introduction to electronics including DC and AC circuits, transistors, operational amplifiers, and combinatorial and sequential logic devices. The laboratory will cover the use of electronic instrumentation as well as illustrate principles. Prerequisite: MAT 152D or equivalent, or permission of instructor.

Cr 3.

## PHY 261 Computational Physics

This course is a project-oriented course which introduces methods of computer simulation and their diverse applications in the physical world. Examples of projects include projectile motion, planetary systems, chaotic systems, and thermal systems. Methods include numerical solutions to differential equations and Monte Carlo techniques. The course emphasizes structured programming, although no background in computer programming is required. Prerequisite: PHY 121 K and prior or concurrent registration in MAT 153, or permission of instructor. Two laboratory sessions and one discussion session per week.

Cr 3.

## PHY 281 Astrophysics

An intermediate-level course in the physics of the astronomical universe. Topics covered include classical astronomy, celestial mechanics, the structure and evolution of stars and galaxies, and cosmology. No previous background in astronomy is required. Prerequisite: PHY 221.

Cr 3.

## PHY 311 Quantum Mechanics

A study of the quantum physics of atoms, nuclei, and particles. Topics covered include wave particle
duality; the Schrordinger Wave Equation and its application to a variety of quantum systems, threedimensional and time-dependent systems, and photons. Prerequisite: PHY 213 and PHY 221. Cr 3.

## PHY 375 Optics

An intermediate-level study of the more important principles of geometric and physical optics, with illustrations of both classical and modern applications. Prerequisites: PHY 223 and two semesters of calculus.

Cr 3.

## PHY 390 Independent Laboratory Study in Physics

An independent study involving primarily laboratory work. Prerequisite: permission of instructor. $\mathrm{Cr} 1-3$.

## PHY 410 Independent Study in Physics

Reading and discussion of advanced subjects or instruction in special topics or research. Prerequisite: permission of instructor. $\mathrm{Cr} 1-3$.

## PHY 440 Advanced Physics Laboratory I

This course may involve a series of experiments in physics or, by permission of the instructor, an advanced project in experimental physics. Prerequisites: PHY 240, and at least one 300-level physics course.

Cr 3.

## AST 100K Astronomy

A descriptive survey of modern astronomy. Topics include theories about the origin and development of the universe, stellar evolution, the solar system, galaxies, observational methods and recent discoveries. No prerequisite.

Cr 3.

## AST 103K Activities and Experiments

A one-credit course meeting weekly for two hours. May be taken concurrently with AST 100 K to fulfill requirements for a science laboratory experience. Includes exercises on the Moon's orbit, Earth's orbital motion, rotation of Saturn's rings, the Sun, the Crab Nebula, variable stars, pulsars, Hubble's law, and galaxies. Two planetarium sessions. Prerequisite: Prior or concurrent registration in AST 100K.

Cr 1.

# Political Science 

Chair of the Department: Lynn Kuzma, 126 Bedford St., Portland
Professors: Faksh, Hamilton, Maiman; Associate Professors: Kuzma, Klotz, Schmidt, Vassallo; Adjuncts: Adams, Hunt

Political science is the systematic study of politics and government and is widely recognized as one of the core disciplines within the liberal arts curriculum. The study of political science provides substantive and analytic background that can lead to a variety of professions; it is not intended to prepare students directly for any specific career. Most obviously it serves those with an interest in entering politics and government. Political science majors go on to become civic leaders, town managers, city planners, budget specialists, foreign service officers, policy researchers, and to hold a variety of management positions in local, state, national, and international organizations. Beyond government, a political science degree leads naturally to graduate training, including law school. Many journalists and broadcasters were political science majors. Business has recognized the analytic and management skills obtained through training in political science. Some studies have estimated that perhaps one-third of undergraduate political science majors undertake careers in business. Political science training is useful in other rapidly developing fields such as polling, communications, campaign management, consulting, private and public interest group activity, and data analysis. College teaching has been a traditional career for the political scientist. Demographics now suggest that entering freshmen can look forward to good job prospects by the time they have completed their graduate educations.

## Programs and Requirements

## Bachelor of Arts in Political Science

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 39 .

Each major must complete POS 101J, POS 104J, POS 203, POS 205, and POS 290. Introducing ideas that are fundamental to the discipline, these required courses should be the first priority for students upon entering the major. Students may choose from any of the Department's other offerings to fulfill remaining credit hours, with the requirement that at least 12 hours be completed at or above the 300 -level. A grade of C - or better is required to receive major credit in the Department.

Students interested in an international studies major should consult the International Studies Program section in this catalog.

The Department administers an elaborate, carefully structured internship program, open to majors and non-majors alike. Political science majors are especially encouraged to take advantage of the variety of internship opportunities as part of their undergraduate program.

The Political Science Department strongly urges its majors to take courses in economics, history, sociology, and computer science. For a number of majors, courses in geography-anthropology, psychology, philosophy, and communication would also be useful. All political science majors are encouraged to undertake at least one year of university-level foreign language study. Additional language study is recommended for those majors with an interest in comparative or international politics and for those considering graduate school.

All students are reminded that, in addition to their meeting departmental requirements for a major leading to a baccalaureate degree, they must also meet the requirements of the school or college involved, as well as the Core curriculum requirements.

Political science courses are normally offered on the following schedule:
Every semester: POS 101J, 102J, 104J, 203, 205, 290, and internships
Yearly: POS 256, 361, 363, 365
Approximately once every two years: POS 120, 233, 234, 261, 262, 280, 310, $315,333,335,336,338,340,342,345,347,349,360,362,374,375,385,391,392$, 453, 459, 463, 464.

## The Honors Degree in Political Science

For a B.A. degree in political science with honors, a student must achieve a 3.7 GPA or higher in courses taken in the major.

Minor in Political Science
The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 18.

Students who wish to complete a political science minor must take at least three of the following five courses: POS 101J, POS 104J, POS 203, POS 205, POS 290. Students may choose from any of the Department's other offerings to fulfill remaining credit hours. A grade of C - or better in POS required courses is necessary to receive credit toward the minor.

## POS 101J Introduction to American Government

This course focuses on the political institutions, processes, behavior, and problems of government in the United States. The national government is emphasized. Key topics include: the Constitution, Supreme Court, Congress, Presidency, political parties, public opinion, and interest groups. Cr 3.

## POS 102J People and Politics

This course introduces the student to modern political analysis. It centers on basic questions in the study of political behavior: how people learn about politics, what kind of political system they adopt and support, who does and who does not participate in politics, how political conflict is expressed and resolved in various societies. The course aims at familiarizing the student with major approaches or methods that political scientists have found helpful for understanding real political behavior. Note: POS 101 J is not a prerequisite for POS 102J. Cr 3.

## POS 104J Introduction to International Relations

Examination of the relationships of nations in their efforts to deal with each other from differing political, economic, and cultural bases.

Cr 3.

## POS 120 Government and Politics of Maine

This course concerns Maine state government, including legislative, executive and judicial programs and powers as exercised within the system of Maine values, political parties, and interest groups. Open to political science majors and as an elective to the student who has an interest in the programs and politics of the state of Maine. No prerequisite. Cr 3.

## POS 203 Introduction to Political Science

 ResearchAn introduction to the way political scientists conduct research. Students will learn how to formulate ideas, conduct a literature review, test hypotheses, measure political phenomena, perform statistical analyses, draw conclusions, and present written results.

Cr 3.

## POS 205 Introduction to Comparative Politics

An introduction to the field of comparative politics with a focus on political systems and political participation. The course will examine political institutions, electoral laws, comparative methodologies, political culture, and the problem of establishing and maintaining democratic government. Case studies will be used to highlight major themes. Cr 3.

## POS 233 Urban Politics

An introduction to the political structure and issues of the American city. Students will investigate the question of whether U.S. cities are democratic, with emphasis on issues of economic and racial pluralism.

Cr 3.
POS 234 Race and Ethnicity in U.S. Politics
Are American political institutions representative?

This course provides students with the opportunity to examine this question by confronting the relationship between race, ethnicity, and representation in elections, court cases, urban politics, and political theory.

Cr 3.

## POS 245 French Politics and Government

This course centers on the political, economic, and social structure of France over the last five decades. Students will learn the essential components of the French governmental system, the most typical economic policies, France's position in the EU, and the ongoing struggle about the defense of the French culture. Prerequisite: ENG 100C, 104C, or equivalent.

Cr 3.

## POS 256 Media and Politics

The media play an increasingly powerful role in modern political systems. This course examines that power and explains how it came about, while noting those forces that restrict or restrain the media's influence. The symbiotic relationship between politicians and journalists is given special attention. Prerequisite: POS 101J or POS 102J or permission of the instructor.

Cr 3.

## POS 261 The American Congress

The role of the national legislature in American politics is considered. The course undertakes a study of the men and women who reach Congress, the internal norms and procedures on national decision making. Among topics covered are the committee system, leadership patterns in the Senate and the House, the public's influence on Congress, Congress and the Presidency, and Congressional policy-making in selected areas. Prerequisite: POS 101J or permission of the instructor. Cr 3.

## POS 262 The American Presidency

This course examines the development of the modern presidency; the scope and exercise of presidential decision making in domestic and foreign policy; and standards for assessing presidential performance. Prerequisite: POS 101J or permission of the instructor.

Cr 3.

## POS 280 Issues Before the United Nations

An orientation to the activities of the United Nations. This course includes exposure to current events, exploration of pressing international issues, understanding the basics of international law, and mastery of the protocol and procedures of international diplomacy.

Cr 3.

## POS 290 Introduction to Political Theory

A survey of political theory from ancient times to the present. Themes include the nature of democracy, freedom, equality, power, legitimacy, justice, and the use of lying in political life.

Cr 3 .

## POS 310 Internet and Politics

This course explores the politics of Internet communication. Topics include Internet development, com-
munication techniques, access policy, citizenship, advocacy, government, journalism, and law. Cr 3 .

## POS 315 Media Law

This course explores the legal context of communication through the mass media. Major issues include censorship, ownership regulation, remedies for people in the news, the right to receive and send communication in the media, and news media privilege. Prerequisite: POS 101J or CMS 103 or permission of the instructor.

Cr 3.

## POS 333 Theories of Democratization

As a general overview of democratization studies, the course goes beyond theoretical discussions about what elements are needed to create a democracy. Students study specific examples of political institutions, economic systems, and political cultures and values as key variables across multiple geographic areas to assess the establishment of democracy. Prerequisite: POS 205 or equivalent or permission of the instructor.

Cr 3.

## POS 335 Politics in Western Europe

This course examines political processes and governmental structures in the nations of Western Europe. It focuses especially on Great Britain, France, and Germany. Among the topics covered are: political parties, elections, voting systems, interest groups, legislative-executive relations, constitutional principles, political elites, leadership behavior, and bureaucracies. Prerequisite: POS 101J or permission of the instructor.

Cr 3.
POS 336 Government and Politics of Russia
An introduction to Russia in the Soviet and postSoviet periods. The course proceeds from a description of the classic Leninist model to the emergence of the new political institutions that began to develop in the Gorbachev era, with an analysis of the economic changes, the ethnic revolution, and the social impacts of the post-Leninist era.

Cr 3 .

## POS 340 The Politics of Developing Nations

An examination of the thrust towards modernization in the Third World. Economic development, relationships with the world community, the role of the military, and various theories about the nature of the relationship between the Third World and the Communist and non-Communist industrial worlds are considered. Prerequisite: POS 104J or permission of the instructor.

Cr 3.

## POS 342 Government and Politics of the Middle East

This course is designed to examine the political dynamics of the Arab countries of the Middle East and Israel. It will examine the social, ecological, his-torical-cultural, and political-ideological forces influencing political institutions and behavior in Egypt, Iraq, Syria, Israel, Jordan, and Lebanon. Cr 3.

## POS 345 British Politics

A survey of the contemporary constitution of Great

Britain, the workings of Parliament, the government, and the parties. Principal stress is on the main issues current in British politics. Prerequisite: POS 101 J or permission of the instructor.

Cr 3.

## POS 347 The Politics of China

An introduction to the government of the People's Republic of China, 1949-present. Principal topics include: historical and cultural antecedents, Maoism, party and state institutions, socialization and communications, political participation, policy formation and implementation, and change over time.

Cr 3.

## POS 349 The Middle East in International Politics

The crucial issues of international politics-war, revolution, superpower intervention, economic development and terrorism-converge in the Middle East on a regional basis. This course will examine the nature of Mideast regional politics and the foreign policies of the major constituents of the area. The purpose will be to secure an understanding of the conflict between Arab and Israeli worlds, the foundations of tension among the Arab states themselves, and the role played by the superpowers in stabilizing or disrupting the uneasy relationships of the region. Prerequisite: POS 104J or permission of the instructor.

Cr 3.

## POS 360 Terrorism and the American Public

An exploration of the phenomenon of modern terrorism. The course defines terrorism, considers the motivations of terrorists, reviews the dangers associated with terrorist access to weapons of mass destruction, considers policy proposals that might be taken to reduce the likelihood of terrorism, and investigates the trade-off between liberty and security.

Cr 3.

## POS 361 Public Administration

An examination of national, state, and local bureaucracies, including their processes of decision making, communications, leadership, internal and external political relationships. A continuing question will be, "How can those institutions be made responsive to the public?" Prerequisite: POS 101J or permission of the instructor.

Cr 3.

## POS 362 Budgets and Politics

A comparative examination of the budgetary processes of municipalities, states, and nations. The budget is the critical point at which goals intersect with resources. Students who complete the course will have a working understanding of various budgeting techniques (such as PPBS, zero-based budgeting, and incremental budgeting) as well as an appreciation of their effectiveness, their impact on expenditures, and their political consequences. Prerequisite: POS 101J or permission of the instructor.

Cr 3.

## POS 363 Legal Process and the Environment

An introduction to current legal techniques and
institutions for environmental protection, with emphasis on statutory interpretation, rule making, licensing procedure, and the roles of expert testimony and citizen participation in administrative, legislative, and judicial processes. Prerequisite: POS 101J or permission of the instructor. Cr 3.

## POS 365 Environmental Politics and Policy

This course provides an introduction to policy making and implementation processes through a survey of current waste disposal issues, air and water pollution control policies, and management issues in environmental protection. Prerequisite: POS 101J or permission of the instructor.

Cr 3.

## POS 374 United States Foreign Policy

A detailed evaluation of U.S. foreign policy focusing on such topics as: identification of U.S. policy; governmental agencies and personalities in the formulation and implementation of policy; the role of non-governmental influences. The course is designed to evaluate current policy goals and practices within the context of long-range goals. Prerequisite: POS 101J or permission of the instructor.

Cr 3.

## POS 375 International Environmental Politics and Policy

This course addresses factors that can be obstacles or incentives in the process of negotiating effective agreements. Such factors include the role of the United Nations, nationalism, sovereignty, the North-South conflict, and the role of non-governmental organizations.

Cr 3.

## POS 380 Topics

Specially developed occasional courses exploring a variety of theoretical and substantive areas of political science. May be repeated for credit as topics vary.

Cr 1-3.

## POS 385 Conflict and Security in Contemporary World Politics

Contemporary threats and challenges to human security and survival often go beyond traditional concepts of "national security." This course focuses on the multiple forms and sources of conflict and insecurity in the modern world system. It analyzes traditional approaches to war and peace in the context of debates over their current adequacy and also examines nontraditional challenges such as economic and environmental security. Prerequisite: POS 104J or permission of the instructor. Cr 3.

POS 390 Ancient and Medieval Political Theory An intensive study of ancient and medieval political theory. Emphasis is on textual criticism of a variety of different works including those from philosophy, literature, and theology. Prerequisite: POS 290, or sophomore status, or permission of the instructor. Cr 3.

## POS 391 Modern Political Theory

A study of modern political theory from the six-
teenth century (Machiavelli) to the nineteenth (Nietzche).

Cr 3.

## POS 392 American Political Thought

An examination of American historical and contemporary thinking on a variety of political topics including equality, revolution, liberty, property, war, and individualism.

Cr 3.

## POS 395 Independent Study I

A concentrated program of research or study on a particular subject of the student's selection. The topic will be chosen with the advice and under the direction of a faculty member. Admission by permission of the political science faculty. Cr 3.

## POS 396 Independent Study II

A concentrated program of research or study on a particular subject of the student's selection. The topic will be chosen with the advice and under the direction of a faculty member. Admission by permission of the political science faculty. Cr 3.

## POS 405 The European Union

An examination of a unique example of political, economic, and cultural integration. The course will emphasize the evolution, enlargement, international positioning, and political organization of the European Union. Prerequisite: POS 101J or POS 102J or POS 104J or POS 205, or permission of the instructor.

Cr 3.

## POS 406 Research in the European Union

Advanced course on the political, economic, and cultural aspects of the European Union, offered exclusively for students who enroll in the summer abroad program, "The European Union in Brussels." Participants will travel to Brussels and The Hague for presentations at the EU institutions, NATO, and the International Criminal Court. Prerequisite: recommended, but not required, POS 205, or any other course with an international content. Cr 3.

## POS 453 Politics of American Policy Making

An introduction to political analysis of public policy formation and implementation. Policy processes will be examined to see what their study can tell us about American politics, institutions, and political behavior. Particular attention will be paid to "who gets what, when and how" from the United States political system, especially how they get it and why it works that way. Alternative methods of policy analysis will be applied to selected areas of current interest and critically evaluated. Prerequisite: POS 101 J or permission of the instructor. Cr 3.

## POS 463 The Supreme Court and the Constitution

The role of the judiciary in American politics, with emphasis on the United States Supreme Court. A series of case studies will cover such topics as economic regulation, civil rights, reapportionment, and war powers. Attention will also be given to the
impact of judicial philosophies on decision making. Prerequisites: POS 101J or permission of the instructor.

## POS 464 American Civil Liberties

An analysis of judicial interpretations of Bill of Rights guarantees and their effects on political processes in the United States. Topics include church and state, freedom of speech and press, the rights of the accused and the convicted. Prerequisites: POS 101J or permission of the instructor.

## POS 470 Electoral Politics Internship

Provision may be made to gain professional experience in a political party organization, electoral or referendum campaign. Students will meet for a series of internship seminars, for which readings and reports will be required. Prerequisite: open to selected students from any major.

Cr 6.

## POS 471 Internship in Private and Semi-Public Organizations

Provision may be made to gain professional experience in administration and research. Students will meet for a series of internship seminars, for which readings and reports will be required. The course is open to selected students.

Cr 6.

## POS 472 Not-for-Profit Internship

Provision may be made to gain professional experience in a civic, public interest, or other not-for-profit organization. Students will meet for a series of internship seminars, for which readings and reports will be required. Prerequisite: open to selected students from any major.

## POS 473 Municipal Administration Internship

Provision may be made to gain professional experience in a local government. Students will meet for a series of internship seminars. Readings and research reports are required, focusing on the management, financial control and administration of modern American cities, with emphasis on administration of personnel and finance, the city plan and line functions; public safety, transportation, health, welfare and housing. Prerequisite: open to selected students from any major.

Cr 6.

## POS 474 Federal Executive Internship

Provision may be made to gain professional experience in a department or agency of the federal government located outside of Washington, D.C. The
course is open to selected students from any major. Participation in a seminar is required. Cr 6.

## POS 475 Congressional Internship

Provision may be made to gain professional experience in the local offices of Maine's U.S. Congressmen and Senators. Students will meet for a series of internship seminars, for which readings and research reports are required. The course is open to selected students from any major. Cr 6.

## POS 476 Internship in Washington, D.C.

Provision may be made to gain professional experience in a congressional office, an agency of the national government, or with a private or semi-public organization in Washington, D.C. The course is open to selected students from any major. Readings and research reports are required.

Cr 9

## POS 477 State Internship

Provision may be made to gain professional experience in a department or agency of state government. Students will meet for a series of internship seminars, for which readings and research reports are required. The state government internship is available under the Maine State Government Internship Program. The course is open to selected students from any major.

Cr 6.

## POS 478 State Judiciary Internship

Provision may be made to gain professional experience in an administrative unit of the state court system. Students will meet for a series of internship seminars, for which readings and reports will be required. The course is open to selected students from any major.

Cr 6.

## POS 479 State Legislative Internship

Provision may be made to gain professional experience in an office of the state legislature. Students will meet for a series of internship seminars, for which readings and reports will be required. The course is open to selected students from any major. Cr 6 .

## POS 480 International Affairs Internship

Provision may be made to gain professional experience in an organization oriented toward international politics, trade, or other transboundary affairs. Students will meet for a series of internship seminars, for which readings and reports will be required. Prerequisite: open to selected students from any major.

Cr 6 .

## Psychology

Chair of the Department: Deborah Johnson, 510 Science Building, Portland Professors: Brown, Gayton, Thornton; Associate Professors: Broida, Johnson, Markowski, Sytsma, Thompson; Assistant Professor: Vella

The Department of Psychology offers a four-year program for students majoring in psychology. It also includes courses for students majoring in allied fields, as well as for students wishing an orientation to the field of psychology as part of their general education. Courses are designed to create an awareness of the fundamental principles of psychology, psychological research, and the means by which psychological knowledge is acquired. The emphasis is upon the scientific inquiry into basic phenomena and principles of behavior, not upon the development of professional skills.

## Programs and Requirements

## Bachelor of Arts in Psychology

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 43.

Required Courses:
PSY 101J \& 102 General Psychology ( 3 credits each semester) to be taken as a two-semester sequence
PSY 105D Statistics in Psychology
PSY 205 Experimental Methodology
PSY 206 Methodology Lab
PSY 220 Psychology of the Lifespan
PSY 230 Social Psychology
PSY 233 Psychopathology
PSY $350 \quad$ Psychology of Learning
PSY $360 \quad$ Cognitive Processes
PSY 361 Sensation and Perception
PSY 365 Physiological Psychology
PSY $371 \quad$ History and Systems
Other courses offered by the Department can be taken as electives to complete the 43-hour minimum. Students must achieve a 2.0 average and grades of C - or better in all psychology courses that count toward fulfillment of the major requirements. Successful completion (with a grade of C- or better) of PSY 101J and 102 are prerequisites for all additional psychology courses, with the exception of PSY 105D and PSY 366 which require successful completion of PSY 101J and a semester of biology.

In addition, successful completion of the following non-psychology course is required for psychology majors. This course should be completed by the end of the sophomore year:

## BIO 111 Human Anatomy and Physiology I (Prerequisite for PSY 365)

PSY 101J and PSY 102 should be successfully completed no later than the end of sophomore year by students who plan to major in psychology. All majors should also complete PSY 205, and PSY 206 (with grades of C- or better) no later than the end of their junior year.

Transfer psychology majors who have taken an introductory psychology course that was completed in one semester have the option of taking PSY 102 or having it waived. If a transfer psychology major waives PSY 102 , he or she must take an additional three credits of psychology electives. Students who are not psychology majors cannot waive PSY 102. MAT 120D can be used in place of PSY 105D.

All students are reminded that, in addition to meeting Departmental requirements for a major leading to a baccalaureate degree, they must also meet the requirements of the school or college involved, as well as the Core curriculum requirements.

The Department recommends that students who wish to take a more extensive program or who plan to enter graduate school elect, in consultation with their major advisor, other courses in psychology and also include study in related fields, such as mathematics, biology, philosophy, sociology, anthropology, computer science, and social work.

Psychology majors who plan to attend graduate school should keep in mind that Graduate Record Examinations must be taken no later than December of their sen-
ior year. Students should plan to complete as many psychology courses as possible by the end of the fall semester of their senior year.

Independent/Directed Study: With the permission of a faculty sponsor, junior and senior psychology majors may elect to participate in independent/directed study in one or more of the following courses: PSY 400 Independent Research; PSY 401 Research Apprenticeship; PSY 405 Teaching Apprenticeship and PSY 410 Internship/Field Experience. No more than 12 credits may be earned in any combination of these courses.

## PSY 101J General Psychology I

An introduction to the study of behavior as a natural science. Among the topics covered are: method of inquiry, physiological foundations of behavior, sensation and perception, motivation and emotion, learning and thinking. This course is a prerequisite for all courses in the Department. Prerequisite: ENG 104C or corequisite: ENG 100C.

## PSY 102 General Psychology II

A continuation of Psychology 101J. It deals with complex psychological processes such as ability testing, personality, conflict, behavior disorders and therapy, and social and industrial behavior. Prerequisite: PSY 101J.

Cr 3.

## PSY 105D Statistics in Psychology

A general introduction to the techniques of descriptive, predictive, and inferential statistics. Emphasis is placed on measures of central tendency and variability, correlation, hypothesis testing, and simple analysis of variance. Prerequisite: successful completion of the University's mathematics college readiness requirement.

Cr 3.

## PSY 205 Experimental Methodology

Emphasis on the principles, methods, and techniques of experimental psychology. Applications of general methodology and specific techniques to the design of experiments in behavioral research. Prerequisite: PSY 201D; corequisite PSY 206.Cr 3.

## PSY 206 Methodology Lab

This course applies the scientific method to selected areas of experimental psychology. Such areas may include animal learning, physiological, sensationperception, cognition, social-personality, and developmental psychology. Report writing and interpretation of statistical results will be emphasized. Prerequisite: PSY 201; corequisite: PSY 205. Cr 1.

## PSY 210 Popular Psychology

This course develops students' skills of critical analysis and interpretation through an examination of popular versions of psychology. Students also explore social and cultural influences on popular forms of psychology in different historical periods. Prerequisites: PSY 101J and 102.

Cr 3.

## PSY 220 Psychology of the Lifespan

This is a broad introductory course focusing on the theories, research methods, and the status of scientific knowledge about human development across the lifespan. The course focuses on the interplay of psychological and environmental factors in physical, cognitive, social, and personality development from birth through adulthood. Prerequisites: PSY 101 J and 102.

Cr 3 .

## PSY 230 Social Psychology

The psychological principles that enter into the social behavior of the individual. Areas of consideration include perception, communication, attitude
formation, interpersonal attraction, and group behavior. Prerequisites: PSY 101J and 102. Cr 3.

## PSY 232 Psychology of Adjustment

A study of the development of personality patterns, modes of behavior, life styles, and coping mechanisms considered normal in this society. Consideration of their value to individual functioning. Prerequisites: PSY 101J and 102. NOTE: This course does not count toward major credit. Cr 3.

## PSY 233 Psychopathology

The etiology, development, and manifestation of the major forms of mental illness with particular emphasis upon the neuroses and psychoses. Psychological, social, and biological factors that contribute to maladjustment are examined. Prerequisites: PSY 101J and 102.

Cr 3.

## PSY 235 Psychology of Women

Psychology of women and psychological literature relevant to men and women. Some topics include physiological and personality differences between the sexes, sex-role development, role conflict, women and traditional therapy. Prerequisites: PSY 101 J and 102.

Cr 3.

## PSY 311 Industrial Psychology

Critical treatment of research methods in personnel selection and evaluation and current theories of individual behavior in complex organizations such as government and business. Prerequisites: PSY 101J and 102.

Cr 3.

## PSY 320 Psychology of Personality

Consideration of current issues and findings in personality. Current research in such areas as locus of control, anxiety, field dependence, interpersonal trust, repression-sensitization, sensation-seeking, authoritarianism, need for achievement, and extroversion. A group research project is required. Prerequisites: PSY 101J and 102. Fall semester only.

Cr 3 .

## PSY 323 Psychology of Infancy and Childhood

This is an advanced course where students with a solid background in developmental psychology will explore in detail the psychological issues and events that occur during the course of infancy and childhood. Current research focusing on the interplay of psychological and environmental factors in physical, cognitive, social, and personality development of individuals from conception to puberty will be explored. Prerequisites: PSY 101J and PSY 102, and either PSY 220 or HRD 200J.

Cr 3.

## PSY 324 Psychology of Adolescence

This advanced course will provide an overview of theories, issues, and research in the study of human development from early adolescence to early adulthood. The interplay of biological and cognitive factors, interpersonal relationships, social structure, and cultural values in shaping the individual's
development will be examined. The role of adolescence in both the individual's life course and evolution of the culture as a whole will be considered. Prerequisites: PSY 101J, PSY 102, and either PSY 220 or HRD 200J.

Cr 3.

## PSY 325 Psychology of Adulthood and Aging

This is an advanced course in developmental psychology focusing on the adult portion of the lifespan. The course will provide an overview of the major theories, issues, and research in the scientific study of adulthood. The interplay of biological and cognitive factors, interpersonal relationships, social structure, and cultural values in shaping the individual's development will be examined. Prerequisites: PSY 101J, PSY 102, and either PSY 220 or HRD 200J.

## PSY 326 Psychology of Social and Linguistic Development

This seminar explores research addressing infant and child social and linguistic development. The main focus is on brain development, temperament, attachment, linguistic growth, and early social cognition as the basis for children's emergent social and communicative competence. Students are expected to contribute to discussion and debates each week. Prerequisites: PSY 101J, PSY 102, and either PSY 220 or HRD 200J.

Cr 3 .

## PSY 335 Deviations of Childhood

Intensive readings and discussion of the etiology and manifestation of deviant patterns of behavior and functioning in children. Problems relating to the identification and management of such deviations are considered. Prerequisites: PSY 101J and 102 or permission of the instructor.

Cr 3.

## PSY 338 Theories of Personality

A survey of the major contemporary approaches to the study of personality. Different theories are compared, their impact upon current thinking evaluated, and their research contributions assessed. Prerequisites: PSY 101J, 102.

Cr 3 .

## PSY 340 Behavior Modification

An introduction to the principles of operant conditioning with emphasis on the application of operant techniques in educational, correctional, and therapeutic situations. Prerequisites: PSY 101J and 102. Cr 3.

## PSY 343 Psychological Test Theory

The theoretical and statistical concepts underlying the development of various psychological tests. Individual and group tests of intelligence, personality, aptitude, and interest are examined and evaluated in terms of these concepts. Uses and abuses of psychological tests are considered. Prerequisite: PSY 201D or instructor's permission.

Cr 3.

## PSY 350 Psychology of Learning

Experimental findings on the fundamental principles that underlie the acquisition and retention of
new behavior. Emphasis is placed on operant and respondent conditioning and the experimental analysis of behavior. Prerequisites: PSY 101J and 102.

Cr 3.

## PSY 351 Learning Laboratory

An introduction to laboratory experiences designed specifically to demonstrate the basic principles of behavior conveyed in PSY 350. Topics include positive reinforcement, extinction, shaping, discrimination, schedules of reinforcement, generalization, and others. Prerequisites: PSY 101J and 102. PSY 350 must be taken either prior to or concurrently with PSY 351.

Cr 1.

## PSY 355 Research in Personality and Social Psychology

Examination of current research in personality and social psychology. Experience in designing, executing, reporting, and evaluating research in personality and social psychology. This will include a research project. Prerequisite: 15 hours in psychology or permission of instructor.

Cr 3.

## PSY 360 Cognitive Processes

A review of contemporary experimental and theoretical work on human information processing. Topics include pattern recognition, memory, attention, decision making, language, problem solving, and creativity. Emphasis will be placed on research methodology and on the interpretation of experimental findings. Prerequisites: PSY 101J and $102 . \quad \mathrm{Cr} 3$.

## PSY 361 Sensation and Perception

An examination of perceptual processes and sensory systems. Emphasis is on experimental methodology, research findings, and theoretical interpretations. Prerequisites: PSY 101J and $102 . \quad \mathrm{Cr} 3$.

## PSY 365 Physiological Psychology

Basic neuroanatomy, neurophysiology, and endocrinology, and the relationships between nervous system functioning and behavior. Physiological analysis of sensory function, motivation, and learning. Prerequisites: PSY 101J, 102, and BIO $111 . \quad$ Cr 3.

## PSY 366 Drugs, Mind, and Behavior

The physiological and behavioral effects of drugs are examined in light of current research. Also considered are theories relating to the use/abuse of drugs, tolerance, addiction, and drug interactions. Prerequisites: PSY 101J and one semester of biology. Cr 3.

## PSY 368 Health Psychology

This course is designed to introduce the student to the discipline of health psychology from a bio-psychosocial perspective. An integrative approach will be provided via discussion of the biological and psycho-physiological foundations of health and disease, including the topics of stress and coping, prevention, diet, substance abuse, and chronic illness. Prerequisites: PSY 101J and 102.

Cr 3.

PSY 371 History and Systems of Psychology
A survey of the history of psychological thought from its beginnings in Greek philosophy to modern times. Special attention will be given to the influence of philosophy and natural science on the development of contemporary psychology. The course concludes with a survey of the major systems. Prerequisite: 15 hours in psychology and/or instructor's permission. This course will satisfy the intensive writing requirement.

Cr 3.

## PSY 380 Psychology and the Law

This course represents an intensive study of the role of psychology in the legal process with particular emphasis upon the insanity defense, competency to stand trial, and involuntary commitments. Also considered are those psychological factors that relate to such topics as jury selection and deliberation, eyewitness testimony and credibility, and courtroom strategy. A term paper is required of all students. Prerequisites: PSY 101J, 102, 333 and/or permission of the instructor.

Cr 3.

## PSY 385 Contemporary Psychotherapies

A survey of contemporary psychotherapies including Gestalt therapy, logotherapy, bioenergetics, reality therapy, transactional analysis, and rational-emotive therapy. Seminar format. This course is designed for advanced psychology majors planning to go on to graduate school in clinical or counseling psychology. Prerequisite: permission of the instructor. Cr 3 .

## PSY 400 Independent Research

This course provides junior and senior psychology majors the opportunity to pursue guided reading/research on a topic of their choosing. Each independent study project will be conducted with
advice and guidance from the sponsoring faculty member. Prerequisites: junior or senior standing, completion of independent study application describing the proposed reading/research project, permission of faculty sponsor. $\mathrm{Cr} 1-3$.

## PSY 401 Research Apprenticeship

This course provides junior and senior psychology majors the opportunity to develop further insight into the research process through direct involvement with ongoing faculty research. Prerequisites: junior or senior standing, completion of independent study application describing the reading/research project and tasks or activities they will be performing, permission of faculty sponsor.

Cr 1-3.

## PSY 405 Teaching Apprenticeship

This course provides psychology majors the opportunity to assist teaching faculty and to develop deeper understanding of course materials and college teaching. Teaching apprentices are selected by faculty. Prerequisites: junior or senior standing, completion of independent study application describing their relevant course experiences and tasks/activities they will be performing, permission of faculty sponsor. $\mathrm{Cr} 1-3$.

## PSY 410 Internship/Field Experience

This course provides junior and senior psychology majors the opportunity to apply their psychology training in organizations and community service projects. Currently students may participate in the USM-Hall School Mentor project. Prerequisites: junior or senior standing, completion of application describing the tasks or activities they will be performing, permission of faculty sponsor and department chair.

Cr 1-3.

# School of Social Work 

Director: Vincent Faherty, Masterton Hall, Portland
Coordinator of Baccalaureate Program: Paul Johnson
Professors: Faherty, Healy, Wagner; Associate Professors: Andonian, Doe, Fineran, Kohli, Johnson, Lazar, Moyo, Rich; Lecturer: Belicose; Field Work Coordinator: Richfield; Field Work Associate: Murton

The University of Southern Maine's School of Social Work is committed to educating culturally competent generalist social work practitioners prepared for multilevel, strengths-based practice that values the centrality of community in enhancing the well-being of diverse individuals, families, groups, organizations, and communities.

The School serves southern Maine by responding to the social work education, leadership, service, and evaluation and research needs of the region. The commitment to social and economic justice, and diversity and multiculturalism are integrated. The School strives for excellence in teaching and learning. Graduates are prepared for multi-level professional practice recognizing the centrality of the role of community in the lives of its constituents.

The program in social work prepares the student for the professional practice of social work at the entry level. The social work curriculum of the School is accredited by the Council on Social Work Education at the baccalaureate level. Students who receive a degree from an accredited undergraduate program in social work may apply to selected graduate schools of social work for advanced standing. It is important to consult individual institutions for their acceptance criteria and procedures, which may vary.

During the first years at the University, with the assistance of faculty advisors, students enroll in a combination of classes fulfilling their Core curriculum requirements, required foundation courses for social work (classes in other fields required by the major), and the major itself. Because many classes are prerequisites for other classes, students must carefully sequence their courses. The model below indicates the desired program for social work majors; starred $\left(^{*}\right)$ classes indicate the class is a prerequisite for other social work requirements.

```
Model Schedule
Year 1
    Proficiency in writing, math if needed
    ENG 100C College Writing
    PSY 101J General Psychology I*
    PSY 102 General Psychology II
    SOC 100J Introduction to Sociology*
    Biology and Biology Lab* (also fulfills K Core requirement)
    Core "F" Fine Arts
    Core "I" Other Times/Other Cultures
    General Electives
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Year 2
ECO 101J Introduction to Macroeconomics*
HRD 200J Human Growth and Development*
POS 101J Introduction to American Government*
SWO 201 Introduction to Social Work*
SWO 250J Introduction to Social Welfare*
Statistics (in math, psychology, sociology, or SBS at Lewiston-Auburn
College)* (also fulfills D Core requirement)
Core "E" Skills of Analysis/Philosophy
Core "G" History Centered Arts
General Electives
Year 3
SWO 301 Social Work Methods I (spring semester)
SWO 333 Social Work Research I

| SWO | 334 | Social Work Research II |
| :--- | :--- | :--- |
| SWO | 350 | Social Welfare Policy |
| SWO | 365 | Examining Oppression and Valuing Diversity |
| SWO | 370 | Human Behavior and Social Environment |
| Electives in sociology, psychology, criminology or SBS |  |  |
| General electives |  |  |

Year 4
SWO 403, 404 Social Work Methods II and III
SWO 411, 412 Field Work (full year)
Social Work elective, 300-level or higher
General electives
Any remaining sociology, psychology, criminology, SBS electives
Students transferring to USM from another college or university must have completed these courses, or their equivalent, as recorded on their Transcript Evaluation form.

To assure consistency and avoid confusion, it is important that social work majors meet with their advisors on a regular basis. Advising in the School of Social Work is a mutual process of exploring career objectives, reviewing School requirements, designing the best possible combination of required courses and electives, determining proper course sequencing, and facilitating a collaborative relationship between the student and the School.

During the field work year, each student is placed in a community social service agency approved by the School of Social Work. Placements begin only in the fall semester and continue throughout the academic year. By the end of the spring semester, each student will have completed 480 hours of field work. A large number of social and community agencies in the Greater Portland area and in cities and towns of southern Maine have been most generous in their cooperation with the School and in making available field instruction resources including supervision for students of the School. All students should refer to School guidelines governing field work for more information and directions.

To major in social work, all students must maintain a 2.0 cumulative grade point average, and a grade of $C(2.0)$ or better in all major and foundation classes. In order to prepare for the field work component in the School of Social Work, students must take SWO 301 Methods of Social Work I in the spring semester preceding their field work year. To qualify for enrollment in SWO 301, students must: 1) have at least 54 credits at the time of pre-registration; 2) have a 2.5 cumulative GPA overall; and 3) have a C or 2.0 grade in all social work and required foundation classes. Students must maintain the 2.5 GPA and a grade of C or better in all social work and required foundation courses to complete the major. Please see the Student Handbook and Field Work manual for additional information about requirements of field work.

Because social work is a values-based profession whose principal commitment is to vulnerable clients, a student's suitability for the profession will be assessed during the process of his or her education.

The students of the School have organized a Social Work Student Organization. The organization seeks to facilitate communication between students and faculty, ensure student involvement in Departmental activities, provide for professional growth, and respond to issues and problems in the community. Student representatives may attend faculty meetings and may serve as advisory members on the Department's curriculum committees. Within the School, a chapter of the Phi Alpha Honor Society exists.

## Programs and Requirements

## Bachelor of Arts in Social Work

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 45 .

The major in social work consists of 45 credits in required social work courses. In addition, 40 credits of foundation courses must be completed in other departments. Some of these foundation courses may also be used to satisfy the Core curriculum requirements as appropriate. Students shall not be eligible to repeat a class more than once without the written permission of the director of the School of Social Work.

Students are required to achieve a grade of C or better in all required social work and required foundation courses; and attain a cumulative grade point average of 2.50 at the point of application for the social work major.

## SWO 201 Introduction to Social Work

This course is an introduction to the profession of social work. Students are introduced to the core values of social work and the code of ethics that emanates from those values. Oppression and social justice are central themes of this course. The practice of social work is considered from the perspective of a collaborative strengths-based model working with complex social service systems. The course familiarizes students with various roles, functions, and tasks which social workers perform in a variety of settings, and acquaints students with the primary skills and practices of professional social work. Taking this course will help students make a more informed decision about social work as a career. Cr 3 .

## SWO 250J Introduction to Social Welfare

Provides an introduction to the institution of social welfare through a review of social welfare history; the values and philosophy in America of treating the poor, the ill, and others in need; contemporary approaches to social policy; and possible alternative models of social welfare.

Cr 3.

## SWO 266 Perspectives on Disabilities

To enhance effective interaction and communication with disabled persons, issues are examined from the perspectives of society and of the individual (disabled and non-disabled). Topics include basic human needs and self-image, independencedependence, anger-frustration, failure, the power of guilt and shame. All students participate in sensory exercises.

Cr 3.

## SWO 301 Methods of Social Work Practice I

This course is an introduction to the basic concepts and skills of interviewing and assessment within the framework of a strengths perspective. Emphasis will be placed on the integration of ethics and the process of reflection within a generalist practice of social work. Prerequisites: SWO 201, SWO 250J, junior status at the time of preregistration for SWO 301, grade of C or better in all required social work and foundation courses, and overall GPA of 2.5. Offered spring semester only. This course has a servicelearning component that requires students to have some time available for work in the community.C r 3.

## SWO 333 Social Work Research I

A study of the methods of social work research for social policy and social work practice. The course emphasizes both quantitative and qualitative research processes with the goal of enabling the student to be competent as a "practitioner-researcher." Prerequisites: SWO 201, SWO 250J; any introductory statistics course (MAT 120D, PSY 201D, SOC 307D, or SBS 328D).

Cr 3.

## SWO 334 Social Work Research II

In this continuation of SWO 333, students complete an empirical research project. Class members serve as a review committee for all research instruments
used, learn the practical aspects of writing quantitative and qualitative research reports, and function as a research support group for one another. Prerequisite: SWO 333.

Cr 3.

## SWO 350 Social Welfare Policy

A critical examination of social welfare institutions, the social problems and social needs to which they are addressed, and the policy decisions which determine the organization and direction of social welfare programs. Prerequisites: ECO 101J, SWO 250J, POS 101J, or permission of instructor. Cr 3.

## SWO 365 Examining Oppression and Valuing

 DiversityThis course is designed to provide a framework for understanding and respecting cultural diversity. The cultural aspects of race/ethnicity, gender, sexual orientation, socioeconomic status, and ableness will be discussed. A central theme in organizing the course is the examination of the role of oppression in shaping lives of members of various cultural groups. Prerequisites: SWO 201 or permission of instructor.

Cr 3.

## SWO 367 Sexual Diversity and Gender Identity in Social Work Practice

Provides an understanding of varying concepts of homosexuality. Employs recent theoretical, empirical and clinical literature to assess attitudes toward homosexuality. Examines motivation and skills to achieve constructive interaction between the professional and the homosexual. Prerequisite: junior standing or permission of instructor. Cr 3.

## SWO 370 Human Behavior in the Social Environment

This course examines the ways in which normative and predictable human behavior throughout the life cycle is mediated by gender, race, age, sexual preference, class and culture. The implication of this knowledge for social work practice will be explored. Prerequisites: SWO 201, SWO 250J; PSY 101J, PSY 102 and introductory course in biology.

Cr 3.

## SWO 374 Sexual Harassment in Education and Work

This course examines sexual harassment in the workplace and education from three perspectives: mental health, sexual violence, and social justice. Students apply concepts from the behavioral and social sciences, from clinical and community practice to contemporary education and corporate environments. Environmental and cultural forces that influence discriminatory behavior are explored. Prerequisite: junior standing or permission of instructor.

## Cr 3.

## SWO 375 Gender and Aging

A theoretical and practical course that informs students about aging issues affecting women and men differentially. Students will analyze the manifestations of aging and apply concepts drawn from the
behavioral and social sciences. Service learning experience may be available. Prerequisite: junior standing or permission of instructor. Cr 3.

## SWO 378 Professional Practice with Older People

Enhances skills in human service practice with older people. Analyzes the sources and manifestations of both healthy and problematic aging. Applies concepts drawn from the behavioral and social sciences, and from clinical and community practice. Translates a developmental rather than a custodial view into everyday direct service. Prerequisite: junior standing or permission of instructor. Cr 3.

## SWO 380 Child Welfare

A study of the policy and practice issues affecting children in current society, including implications for social services and institutional change. Prerequisites: SWO 201 and SWO 250Jor permission of the instructor.

Cr 3.

## SWO 381 Social Work with Children

This course explores the application of social work skills and knowledge in professional interactions with children and adolescents within the context of social welfare agencies. The focus is on the skills involved in treatment as well as knowledge about family and community systems. Prerequisites: SWO 201, SWO 250J or permission of the instructor.

Cr 3.

## SWO 385 Sexual Abuse of Children and Adolescents

This course will examine the application of social work skills and knowledge to the issue of sexual abuse of children and adolescents. An up-to-date review of the latest research and clinical findings will be presented. Attention will be given to a variety of issues as well as the value dilemmas presented by client situations. Prerequisite: junior standing or permission of the instructor.

Cr 3.

## SWO 388 Alcohol and Other Drug Abuse Issues

 Examines the use and abuse of psychoactive substances: street drugs, prescription drugs, alcohol, caffeine, and nicotine. Consideration of the history, pharmacology, and physical and psychological affects of each substance. Exploration of prevention and treatment models, with special reference to those in use locally. Prerequisite: junior standing or permission of instructor.Cr 3 .

## SWO 391 Mind/Body/Spirit Connections in Social Work Practice

Examines mind/body/spirit connections in social work practice with regard to stress and its management (meditation, breath control, other relaxation tech-
niques), stress-related illness and personalities, contemporary therapies (mainstream and culturally specific), and spirituality. Prerequisite: SWO $201 . \quad \mathrm{Cr} 3$.

## SWO 397 Department Projects

Individual or group projects, requiring independent study or field work in some aspect of social welfare, to be selected by students in consultation with a particular faculty member. Prerequisites: Department permission and application prior to registration. Cr var.

## SWO 403 Methods of Social Work Practice II

Examines the dilemmas of professional human service workers in bureaucratic systems and the effects of professionalization and the bureaucracy on consumers. Develops a range of methods aimed at better meeting client need with particular reference to strategies of organizational change and community organization. Class discussions and assignments are based on field work experiences. Prerequisites: SWO 301 and a C or better in all required social work and foundation courses, and an overall 2.5 GPA. SWO 411 taken concurrently.

Cr 3 .

## SWO 404 Methods of Social Work Practice III

This course is a continuation of Methods of Social Work Practice II. It explores the contextual nature of generalist social work practice within a strengths perspective. Emphasis will be placed on the processes of engagement, assessment, and intervention with individuals, families, and groups. Family systems, group, and crisis models of intervention will be presented. This course must be taken concurrently with SWO 412 (Field Work II). Prerequisites: SWO 301, SWO 403. Spring semester only. Cr 3.

## SWO 411 Field Work I

For social work majors: a required internship of 16 hours per week in approved agency settings, designed to relate social work theory to practice under professional supervision. Fall semester only. Must be taken as the first in a two-course sequence. Prerequisites: SWO 201; SWO 301; a C or better in all required social work and foundation courses, and an overall 2.5 GPA . SWO 403 taken concurrently. Fall semester only.

Cr 6.

## SWO 412 Field Work II

A continuation of SWO 411. Spring term only. Must be taken as the second in a two-course sequence. Prerequisites: SWO 301, SWO 403, SWO 411, and SWO 404 (concurrent). Cr 6.

## SWO 456 Issues in Social Welfare and Social Work

A seminar for social work majors that addresses significant issues confronting the social welfare system and the profession. Prerequisite: social work major or permission of instructor.

Cr 3.

# Sociology 

Chair of the Department: Ed Collom, 120 Bedford Street, Portland
Professors: Chapkis, Deprez; Associate Professors: Collom, Laz; Assistant Professor: Baugher, Lecturer: Diamon; Adjunct Faculty: Bird

Sociology is the study of social life and the social origins and consequences of human behavior. Sociology's subject matter ranges from the intimate family to the hostile mob, from crime to religion, from the divisions of race and social class to the shared beliefs of a common culture, from the sociology of work to the sociology of sport. Sociology is a liberal arts major with particular emphasis on developing students' abilities to think critically about complex issues, to analyze social phenomena, to design and carry out research, and to write with clarity and economy. An undergraduate major in sociology offers valuable preparation for careers in social work, social research, politics, public administration, law, business, and education.

The major also provides an excellent basis for graduate study in sociology, law, criminology, social work, and education.

## Alpha Kappa Delta

Juniors and seniors who have demonstrated an interest and involvement in sociology, who have completed at least four sociology courses at USM, and who have accumulated at least a 3.0 grade point average in sociology courses at the University are eligible for nomination to Alpha Kappa Delta, the national sociology scholarship and honor society.

## Internships

The Department of Sociology offers a strong and on-going internship program. The program helps place students in community agencies and organizations to bring together student academic work and community involvement. Students interested in an internship placement are encouraged to meet with the internship coordinator.

## Programs and Requirements

## Requirements for the Baccalaureate Degree

All students are reminded that, in addition to meeting Departmental requirements for a major leading to a baccalaureate degree, they must also meet the requirements of the College of Arts and Sciences, and the University's Core curriculum.

## Major Credit and Grade Policy

The prerequisites for all 300-level sociology courses are SOC 100J and SOC210E/W with grades of C or better. Courses to be taken for major credit at other institutions must be approved in advance. Grades of C or better must be achieved in all courses for major or minor credit. Courses taken pass/fail are not acceptable.

## Bachelor of Arts in Sociology

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 38.

Required Prerequisites for all advanced sociology courses (6 hours)
SOC 100J Introduction to Sociology
SOC 210E/W Critical Thinking About Social Issues
Required Courses (11 hours)
SOC 300 Sociological Theory
SOC 301 Qualitative Research Methods
SOC 307D Quantitative Research Methods
Required Courses in Class Processes-choose one course from the following (3 hours):

SOC 312 Inequality and Power
SOC 348 Sociology of Work
SOC 358 Sociology of Women's Work
SOC 359 Leisure and Consumption under Global Capitalism
SOC 392 Poverty: Policy and Perspectives
SOC 393 Women, Welfare, and the State
Elective courses - choose from among the following (18 hours)
SOC 289 Modern British Society
SOC 315 Self and Society

| SOC | 316 | Sociology of Gender |
| :--- | :--- | :--- |
| SOC | 318 | Childhood and Society |
| SOC | 323 | Sociology of Death and Dying |
| SOC | 327 | Social Movements |
| SOC | 330 | Sociology of the Family |
| SOC | 331 | School and Society |
| SOC | 333 | Medical Sociology |
| SOC | 334 | Sociology of Religion |
| SOC | 343 | Social Psychology |
| SOC | 345 | Hate Violence in the Contemporary United States |
| SOC | 348 | Sociology of Work |
| SOC | 352 | Demography |
| SOC | 355 | Politics and Society |
| SOC | 357 | Organization: Individual and Society |
| SOC | 358 | Sociology of Women's Work |
| SOC | 359 | Leisure and Consumption under Global Capitalism |
| SOC | 360 | Sociology of Age |
| SOC | 365 | Sociology of the Body |
| SOC | 371 | Sociology of Race and Ethnicity |
| SOC | 374 | Mental Health and Mental Illness |
| SOC | 380 | Topics in Sociology |
| SOC | 390 | Individualized Instruction I |
| SOC | 391 | Individualized Instruction II |
| SOC | 393 | Women, Welfare, and the State |
| SOC | 395 | Internship |
| SOC | 400 | Punishment and Social Control |
| SOC | 450 | Undergraduate Teaching Assistantship |

## Minor in Sociology

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 19 .

The minor is intended for those students with a major other than sociology but who wish to broaden their educational experience in a formally designated program of study. The minor program may be of particular interest to students in the College of Nursing and Health Professions, the School of Business, the College of Education and Human Development, and non-social science disciplines in the College of Arts and Sciences.

Thirteen credit hours are required courses; the remainder are electives. Required courses: SOC 100J; SOC 210E; SOC 300; SOC 301; sociology electives**.
**Each student minoring in sociology elects a minimum of two upper-division courses from those offered by the Department. These courses, chosen in consultation with the student's minor advisor, reflect the preprofessional or other interests of the student.

Supplementary information is published each semester by the Sociology Office to assist students in planning their course schedules. The information includes a summary of major courses, listings and descriptions of special courses, and general information for majors.

To obtain these publications, or for other information, write to: Chair, Sociology Department, University of Southern Maine, P.O. Box 9300, Portland, Maine 04104 or telephone: (207) 780-4100.

## SOC 100J Introduction to Sociology

The fundamental concepts, principles, and methods of sociology; analyzes the influence of social and cultural factors upon human behavior; evaluates effect of group processes, social classes, stratification, and basic institutions on contemporary society. Offered each semester.

Cr 3.

## SOC 210E/W Critical Thinking about Social Issues

Designed to follow Introduction to Sociology, this course further develops students' skills of critical analysis through the application of sociological principles to current social issues. The course uses popular media as well as sociological materials. Examples of issues which may be examined are: poverty, health care, homelessness, aging, drugs, violence, bureaucracy, white collar crime, and changing gender roles. Prerequisite: Successful completion of SOC 100J with a grade of C or better or permission of the instructor.

Cr 3 .

## SOC 289 Modern British Society

This course forms the cornerstone of USM's summer program at Sheffield, England. The course provides an opportunity to study, experience, and live in British society and culture. The course combines seminars about modern Britain with visits to various sites in England and Scotland. Seminar topics include but are not limited to: cultural diversity and pluralism, village life and city life, the Parliament and government, the British class structure, the British welfare state, the industrial revolution, and the problem with ethnocentrism.

Cr 3.

## SOC 300 Sociological Theory

Critical evaluation of selected classical models of the social world. Includes consideration of the foundations of sociological thought, the content of major classical theories and theory groups, and the sociocultural settings within which they developed. Prerequisite: SOC $210 \mathrm{E} / \mathrm{W}$ with C or better or permission of instructor.

Cr 3.

## SOC 301 Qualitative Research Methods

This course provides an overview of the process of social research utilizing qualitative methods. Topics include the logic and principles of the research process, as well as specific techniques in qualitative research (e.g., writing field notes, conducting interviews, analyzing qualitative data). A fieldwork/lab component allows students to apply research skills in settings outside the classroom. Prerequisite: SOC $210 \mathrm{E} / \mathrm{W}$ with a grade of C or better or permission of instructor.

Cr 4.

## SOC 307D Quantitative Research Methods

This course provides an overview of the social scientific research process, utilizing quantitative methods. Students generate research questions and testable hypotheses and analyze a variety of secondary data sources. Specific statistical topics include: measures of central tendency, measures of disper-
sion, t-testing, analysis of variance, cross-tabulation, measures of association, linear regression, and multiple regression. The course includes a computer lab component. Prerequisites: SOC 210E/W with a grade of C or better and completion of mathematics proficiency, or permission of instructor. Cr 4.

## SOC 312 Inequality and Power

A systematic assessment of structured social inequalities in wealth, power, and status in industrialized societies. Emphasis is placed on assessing social policies employed to reduce, ameliorate, or sustain such inequalities. Prerequisite: SOC 210E/W with C or better or permission of instructor.

Cr 3.

## SOC 315 Self and Society

This course explores the social construction of self as the result of both face-to-face and societal-level social processes such as language acquisition, identity development, and the effects of culture and social structure on individual and collective conceptions of self-hood. Readings and discussions focus on the relative contributions of individual self-determination and societal constraints on self-hood. Specific topics include childhood identity development, social stigma and societal definitions of normality, social structure and self-esteem, and crosscultural differences in the concept of self-hood. Prerequisite: SOC $210 \mathrm{E} / \mathrm{W}$ with C or better or permission of instructor.

Cr 3.

## SOC 316 Sociology of Gender

This course examines gender as a social, cultural, and historical construction which occurs within and reinforces sex/gender stratification. With particular attention paid to education, the family, and work, we will explore sex/gender stratification-its sources and dynamics; historical and contemporary forms; and implications for human lives, history, and society. Prerequisite: SOC $210 \mathrm{E} / \mathrm{W}$ with C or better or permission of instructor.

Cr 3.

## SOC 318 Childhood and Society

This advanced course examines the social construction of childhood. Topics include but are not limited to socio-historical study of the evolution of childhood, the child in art and literature, socialization and gender as process, structured inequality and children's life chances, cross-cultural comparisons of childhood, and U.S. family policies for the welfare of children. An applied component allows students to integrate theory and observations of the day to day life of children. Prerequisite: SOC 210E/W with C or better or permission of instructor.

Cr 3.

## SOC 323 Sociology of Death and Dying

This course focuses on some of the central issues in the sociology of death and dying: the social construction of grief and loss, the experience and meaning of death and dying in the late modern world, the politics of meaning making in the face of collective trauma, and the relation of pain and death and their representation to the making and unmaking of
social order. Prerequisite: SOC 210E/W with C or better or permission of instructor. Cr 3 .

## SOC 327 Social Movements

This course is divided into two sections: social movement theory and social movement cases. First, students will explore the three dominant theoretical approaches covering the micro, meso, and macro context of social movements. These include framing and interpretive processes, mobilizing structures, and political opportunities. The "classic" U.S. social movement of the 1960s (civil rights, women's liberation, anti-war, and free speech) and 1970s-80s (environmental and peace) will be utilized as historical cases to comprehend social movement theory. The second section of the course will address contemporary movements including (but not limited to) labor, anti-globalization, local alternatives, and the new peace movements. Prerequisite: SOC 210E/W with C or better or permission of instructor. Cr 3 .

## SOC 330 Sociology of the Family

A sociological approach to the study of the family, including the structure of social relationships, the modern American family as a social institution, the cultural background of the family, and the impact of social change. Prerequisite: SOC 210E/W with C or better or permission of instructor.

Cr 3.

## SOC 331 School and Society

This course examines the social organization of schooling and its social and political context in contemporary American society. Topics include the emergence of public education, role of state and community in shaping its nature, problems of access and equality, the organizational nature of schools, teaching as a profession, and alternatives to public education. Attention is given to public debates concerning the conditions, limits, and possibilities of schooling. Comparisons with educational systems of other countries are included when appropriate. Prerequisite: SOC $210 \mathrm{E} / \mathrm{W}$ with C or better or permission of instructor.

Cr 3.

## SOC 333 Medical Sociology

Analysis of socio-cultural influences on health and illness, with an emphasis on health, illness, and sickness as social identities. Particular attention is given to the organization of health-related occupations and health services in cross-cultural perspective, and to the ethical and policy-related issues raised by different models of organization. Prerequisite: SOC 210E/W with C or better or permission of instructor.

Cr 3.

## SOC 334 Sociology of Religion

Review and critique of classical and contemporary sociological interpretations of religion, with emphasis on the changing character of religious expression in the twentieth century. Prerequisite: SOC $210 \mathrm{E} / \mathrm{W}$ with C or better or permission of instructor. Cr 3 .

## SOC 343 Social Psychology

This course provides an overview of sociological the-
ory and research in social psychology on the central topics of social perception, social communication, and social interaction. The course focuses on the impact of sociological factors such as gender, race, and class on face-to-face behavior and on how face-to-face interaction contributes to the creation and maintenance of social structure. Specific topics include social psychological methods; causes and consequences of stereotyping; gender, power, and conversation; status structures in small groups; distributive justice; and social dilemmas. Prerequisite: SOC 210E/W with C or better or permission of instructor.

Cr 3.

## SOC 345 Hate Violence in the Contemporary United States

This course offers an interdisciplinary look at hate violence beginning with a brief examination of some of the historical roots of contemporary hate violence in the United States. Students will then focus on major issues presented by hate violence from the mid-1980s to the present. In particular, students will examine the causes and impacts of hate violence and the legal and policy implications of how hate crimes have been addressed within the United States. Prerequisite: SOC $210 \mathrm{E} / \mathrm{W}$ with C or better or permission of instructor.

Cr 3 .

## SOC 348 Sociology of Work

This course surveys three strands of the literature: the nature of work under capitalism, the consequences emerging from such labor, and alternatives to capitalist relations in production. Specific topics include work in the global economy, Fordism and flexible capitalism, the division of labor, labor markets, control in the workplace, corporate dominance, jobs and the class structure, alienation, and workplace democracy. Prerequisite: SOC 210E/W with C or better or permission of instructor. Cr 3 .

## SOC 352 Demography

Fertility, mortality, and migration as they affect every aspect of life whether political, economic, or social and the reciprocal impact of these on the population variables. Specific applications include: the relationship of population growth and aging; population growth and the status of women; population growth and urbanization; food and population policy; population growth and economic development; population characteristics and life changes; population characteristics in marketing; crime and the age structure; fertility changes and the labor market and the impact of immigration. Prerequisite: SOC $210 \mathrm{E} / \mathrm{W}$ with C or better or permission of instructor.

Cr 3.

## SOC 355 Politics and Society

This course will focus on power relationships in U.S. society, with some cross-national comparisons. Specific topics to be covered include the nature and distribution of power among social groups and organizations, theories of the state, social class and political participation, policy formation, and the interactions between democracy as a political system and capitalism as an economic system.

Prerequisite: SOC $210 \mathrm{E} / \mathrm{W}$ with C or better or permission of instructor.

Cr 3.

## SOC 357 Organization: Individual and Society

This course examines the nature of modern organizations and their impact on individuals and society. Several theoretical perspectives on organization will be examined to gain an understanding of organizational life and organizations' role in modern society. In addition, we will consider dilemmas faced by individuals interacting with organizations as functionaries (for example, workers, government employees, teachers, police) and as clients. Prerequisite: SOC $210 \mathrm{E} / \mathrm{W}$ with C or better or permission of instructor.

Cr 3.

## SOC 358 Sociology of Women's Work

This course will introduce students to theoretical and empirical literature on women's work in the paid labor force, on their unpaid labor in the home, and on the relationship between these two kinds of "women's work." The course emphasizes the diversity of women's work and the interconnections among race-ethnicity, class, and gender through a detailed examination of professional women, bluecollar women, and "pink-collar" employees. Additional topics include occupational segregation, earnings differentials, poverty, law and public policy, and labor militancy. Prerequisite: SOC 210E/W with C or better or permission of instructor. Cr 3 .

## SOC 359 Leisure and Consumption under Global Capitalism

This course will use sociological concepts, paradigms, and research methods to engage students in a critical examination of leisure and consumption preferences and practices among the working, middle, and upper classes in the developed nations, especially the United States. Prerequisite: SOC 210E/W with C or better or permission of instructor. Cr 3 .

## SOC 360 Sociology of Age

This course will introduce students to the "graying of America" and to the processes and problems associated with growing old in America. Using a dual focus on aging of the individual and on age as a structural feature of any society, the course will provide an analytical framework for understanding the interplay between human lives and social structure. The increased importance of the aged as a social, political, and economic force in society will also be discussed. Prerequisite: SOC 210E/W with C or better or permission of instructor. Cr 3 .

## SOC 365 Sociology of the Body

This course examines the body as a text marked by, and rendered meaningful through, social categories of race, gender, class, sexuality, disability, and disease. This writing- and reading-intensive course discusses both social constructionist and biological determinist perspectives on embodied difference. Prerequisites: SOC 210E/W with C or better and one or more of SOC 300, SOC 316, WST 380, WST $390 . \quad$ Cr 3.

SOC 371 Sociology of Race and Ethnicity
Considers the factors that produce and maintain structured social inequality based on minority status, and the social consequences of such inequality. Includes analysis of selected minorities both in the U.S. and cross-culturally. Prerequisite: SOC 210E/W with C or better or permission of instructor. Cr 3 .

## SOC 374 Mental Health and Mental Illness

An examination of theories of the "causes" of "madness" and the treatment of the mentally ill. Particular attention on the influence of culture on the definition of illnesses, the relationship between social factors and illness, and the social context of treatment. Prerequisite: SOC $210 \mathrm{E} / \mathrm{W}$ with C or better or permission of instructor.

Cr 3.

## SOC 380 Topics in Sociology

Specially developed occasional courses exploring a variety of theoretical and substantive areas within the field. Offered as resources permit. These courses may be counted as electives toward completion of the major. Prerequisite: SOC $210 \mathrm{E} / \mathrm{W}$ with C or better or permission of instructor.

Cr 3.

## SOC 390 Individualized Instruction I

Independent reading and/or research for juniors and seniors. Apply to Department chair. Prerequisite: 15 hours in sociology.

Cr var.
SOC 391 Individualized Instruction II
Continuation of independent reading and/or research for juniors and seniors. Apply to Department chair. Prerequisite: SOC 390. Cr var.

## SOC 392 Poverty: Policy and Perspectives

This course will analyze the causes of and responses to poverty in the United States. Relying on multidisciplinary literature, this course examines measures and theories of poverty; public, political, and policy debates; and the role of government in income distribution/redistribution. Particular attention will focus on issues of power, wealth, gender, and race, as well as education, health, housing, and place as factors inextricably linked to poverty. Prerequisites: SOC 210E/W with a C or better, SOC 301 and SOC 307D recommended, or permission of instructor.

Cr 3.

## SOC 393 Women, Welfare, and the State

The course explores the gender bias of social welfare policy in the U.S., revealing a welfare state whose adherence to central elements such as the Protestant work ethic, "family values," and a lais-sez-faire economy excludes over half the population. From both historical and theoretical perspectives, the course examines the development of the American welfare state, compares it to Western and Eastern European states, and assesses its impact on women's lives. Prerequisites: SOC 210E/W with a grade of C or better and junior/senior standing, or permission of instructor.

Cr 3.

## SOC 395 Internship

The course is designed to provide work/action experience and insight into professional roles in a variety of community agencies and organizations. The primary objective of the internship is the application of the perspectives, substantive knowledge, and methods of social science to a particular organizational setting. Thus, the internship can be understood as a participant observation experience within the context of social science research. It is primarily designed as a field experience/reflection opportunity for upper-level social science majors with substantive background/coursework in the area of internship placement. In addition to field placement, students are expected to meet for a series of internship seminars, for which readings and reports will be required. Contact Departmental internship coordinator for details. Cr 4 to 6 .

## SOC 450 Undergraduate Teaching <br> Assistantship

In working closely with faculty, undergraduate teaching assistants will gain insight into course materials and into all aspects of college teaching. This experience will be especially valuable for students who plan to do graduate work in sociology and for students exploring a career in teaching. Teaching assistants also provide an additional resource for assistance, advice, and modeling. Undergraduate teaching assistants generally assist faculty in course preparation and delivery including locating and reviewing materials for course use; assisting with the design of course schedule, exercises, assignments, and class presentations; lecturing and supervision of student groups; and providing feedback to students on their work. In addition, teaching assistants hold regular office hours. Enrollment in SOC 450 will depend on Departmental needs and course offerings. Selection is made by the faculty. Students should contact the Department chair for details. Prerequisite: SOC majors by permission only.

Cr 3.

## Theatre

Chair of the Department: Charles S. Kading, Russell Hall, Gorham
Professors: Kading, Kilroy, Picinich, Power, Steele; Associate Professor: Kent; Instructor: Zura; Technical Director: Fertig; Costume Director: Hall; Professors Emeriti: Rootes, Stump

The Department of Theatre offers a four-year program leading to a B.A. degree in theatre. An undergraduate degree in theatre offers valuable preparation for careers in educational or professional theatrical activities, as well as other nonrelated disciplines.

All students are reminded that, in addition to meeting departmental requirements for the major, they must also meet the requirements of the College of Arts and Sciences as well as the Core curriculum requirements.

## Programs and <br> Requirements

## Bachelor of Arts in Theatre

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 64 .

Students with the intent to major must complete the following courses during their first four (4) semesters:

| THE | 101 G | Introduction to Drama |
| :--- | :--- | :--- |
| THE | 104 | Practicum in Costuming |
| THE | 105 | Practicum in Stage Lighting |
| THE | 106 F | Practicum in Stagecraft |
| THE | 120 | Acting: Stage Movement / Voice |
| THE | 230 | Designing for the Performer |
| THE | 141 | Theatre Workshop |
| THE | 142 | Theatre Workshop |
| THE | 134 F | Production Management |
| THE | 135 F | Stagecraft |
| THE | 150 H | Play Analysis |

All majors or intended majors are required to take 0.5 credits of Theatre Workshop (THE 141, 142, 143, 144) per semester.

Theatre students who fail to maintain a 2.5 GPA in theatre courses and a 2.0 overall GPA may not be allowed to participate in Department productions in either an acting or technical capacity (except those lab duties or course requirements related to coursework).

The above GPA standards are required for graduation and a grade of C - or better is required in all theatre courses.

Students are encouraged to meet with the faculty or staff whenever questions arise or problems occur.

The following courses are required:

| THE | 101 G | Introduction to Drama |
| :--- | :--- | :--- |
| THE | 104 | Practicum in Costuming |
| THE | 105 | Practicum in Stage Lighting |
| THE | 106 F | Practicum in Stagecraft |
| THE | 120 | Acting: Stage Movement/Voice |
| THE | 134 F | Production Management |
| THE | 135 F | Stagecraft |
| THE | 141 | Theatre Workshop (to be repeated once) |
| THE | 142 | Theatre Workshop (to be repeated once) |
| THE | 143 | Theatre Workshop (to be repeated once) |
| THE | 144 | Theatre Workshop (to be repeated once) |
| THE | 150 H | Play Analysis |
| THE | 170 F | Public Speaking or THE 175F Oral Interpretation |
| THE | 220 | Acting: Scene Study |
| THE | 230 | Designing for the Performer |
| THE | 325 | Directing |
| Take any two (2) of the following: |  |  |
| THE | 331 | Scene Design |
| THE | 334 G | Costuming I |
| THE | 335 | Lighting Design or THE 337 Sound Design |

Take any three (3) of the following:
THE $351 \quad$ Dramatic Literature and Theatre History I
THE 352 Dramatic Literature and Theatre History II
THE 353G Dramatic Literature and Theatre History III
THE 354 Dramatic Literature and Theatre History IV
Theatre Electives ( 12.0 credits total)
Take any two (2) 100/200 level theatre courses ( 6 credits total)
Take any two (2) 300/400 level theatre courses ( 6 credits total)
Electives from other departments may be taken in lieu of theatre courses if approved by Department vote.

Advanced Topic (minimum 3. credits);
Take any one (1) of the following:

| THE | 421 | Topics in Performance | ( 3 credits) |
| :--- | :--- | :--- | ---: |
| THE | 430 | Topics in Design | ( 3 credits) |
| THE | 451 | Topics in History / Literature | ( 3 credits) |
| THE | 490 | Independent Study | (1 to 6 credits) |
| THE | 491 | Project I | ( 1 to 6 credits) |
| THE | 492 | Theatre Internship | ( 1 to 15 credits) |

Suggested areas of emphasis include: Advanced Topics in Acting and Performance, Design, Technical Theatre, Dramatic Literature and Theatre History, Playwriting, and Oral Interpretation.

## Theatre Department Production Requirements

The Department of Theatre requires each major to participate in Theatre Department functions by completing Theatre Workshop courses and Department projects. Credit for these may be earned separately or concurrently according to Departmental guidelines. Each theatre major must enroll in 0.5 credits of Theatre Workshop each semester (maximum of 4 credits). Theatre Workshop courses require, in part, participation in an approved Department project with a point value of 8 or more.

Department projects are assigned point values relative to their complexity. Theatre majors must accrue a minimum of 64 points of project credit for graduation. These projects must be completed in a variety of discipline areas. To insure this variety, project points must be distributed as follows: acting area-24 points minimum; technical area-24 points minimum.

A listing of approved projects and their specific point values is available at the Department of Theatre office.

In the event that a student repeatedly auditions or requests technical area positions for Department productions but is not given a role or a crew position, this effort will be considered a good faith effort on the part of the student and may fulfill the acting or technical area minimum point distribution requirement.

All cast and crew members of Department productions are required to participate in the closing night clean-up (strike) for that show.

## Student Participation

Theatre succeeds in direct proportion to the quantity and quality of the group effort, and so it is not surprising that the USM Theatre program thrives on the participation of all majors, minors, and other interested students.

Theatre is a strict and demanding discipline; the time dedicated to production and rehearsal is extensive. Therefore, the Department of Theatre urges students to select non-Departmental theatre activities prudently and with consideration for their overall academic and production commitments. The Department also strongly recommends that theatre majors consult their advisors in order to integrate the outside project into their overall program.

## Minor in Theatre

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 21.

The courses required are THE 134F, THE 150H, THE 120 or THE 220 with permission of instructor and four other courses chosen in consultation with a Theatre Department advisor in accordance with the interests of the student.

## Musical Theatre Major

The study of musical theatre performance at the University of Southern Maine is offered as a collaboration between the School of Music and the Department of Theatre. It is designed for those individuals who wish to pursue a career in musical theatre performance. Private lessons in voice, solo and ensemble performance, as well as theatrical dance training are emphasized. This degree concentration complies with NASM guidelines for a musical theatre degree with an emphasis in music.

Applicants to the musical theatre major will be required to demonstrate proficiency in the following disciplines: voice, sight reading, general musicianship, acting, and movement. Applicants must reserve an audition time by calling the School of Music at (207) 780-5265.

Requirements for graduation also include successful participation in one backstage assignment, one chorus role, and two significant roles in an approved musical theatre production.

| Theatre Foundation Courses (required): 10 credits |  |  |
| :--- | :--- | :--- |
| Must be completed by end of sophomore year |  |  |
| THE | 101 G | Introduction to Drama |
| THE | 103 F | Contemporary Dance I |
| THE | 120 | Acting: Stage Movement / Voice |
| THE | 130 | Musical Theatre Workshop |
| THE | 131 | Musical Theatre Workshop |
| Additional Theatre | Courses (required): 20 credits |  |
| THE | 131 | Musical Theatre Workshop |
| THE | 132 | Musical Theatre Workshop |
| THE | 139 | Theatrical Make-up |
| THE | $203 F$ | Musical Theatre Dance |
| THE | 220 | Acting: Scene Study |
| THE | 303 | Musical Theatre (4 credits) |
| THE | 321 | Acting: Advanced Scenework |
| THE | XXX | Theatre Elective (3 credits) |

The musical theatre degree is granted by the School of Music as a bachelor of music in performance-musical theatre (MUP). For additional information regarding specific School of Music required courses, please refer to the School of Music section of this catalog.

## Fees

Materials and/or admission fees may be required for some theatre courses. Please contact the Theatre office at 780-5480 for specific requirements.

In the event that students believe they are qualified to enroll in a theatre course, but have not completed the USM prerequisites for that course, they may contact the Department to request permission to enroll.

## THE 101G Introduction to Drama

A lecture-discussion course designed to provide students with a conception of the development of the theatre and its literature. The course consists of a survey of Greek, medieval, Elizabethan, French neoclassic, and 18th, 19th and 20th-century theatre and drama.

Cr 3 .

## THE 102F Acting for Non-Majors

This course will introduce core students to theatre through the eyes of the performer. Students will gain a basic understanding of theatre as a performing art through lecture, discussion and performance of scenes. Improvisational exercises, relaxation techniques and character analysis strategies will be included. Students will also attend campus and area theatrical productions and be required to write critical reviews of the performances.

Cr 3.

## THE 103F Contemporary Dance I

This course is designed to teach basic contemporary dance skills and vocabulary. The class is divided into two areas of study. Physical and technical development are learned through strengthening and stretching exercises. Proper body alignment is stressed for the most efficient and injury-free movement. Dance phrases are taught to enhance rhythmic and locomotor skills. Equal time will be devoted to improvisational skills and the study of choreographic techniques. Students will be required to attend contemporary dance performances. Course may be repeated once for credit.

Cr 3.

## THE 104 Practicum in Costuming

This course is a laboratory session that allows practical application of theory discussed in THE 334G Costuming, by teaching sewing skills and allowing students to construct costumes for a University theatre production. Practicum is required for theatre majors and recommended for all costuming students, but need not be taken concurrently with THE 334G. Prerequisite: sophomore status or THE 101G. Cr 1.

## THE 105 Practicum in Stage Lighting

A course focusing on the practical application of contemporary stage lighting technology and on the implementation of a lighting plot.

Cr 1.

## THE 106F Practicum in Stagecraft

A practicum allowing the application of theory discussed in THE 135F to the construction, painting, and mounting of sets for University theatre productions. Practicum is required for theatre majors and recommended for all stagecraft students, but need not be taken concurrently with THE 135F Stagecraft.

Cr 1 .

## THE 120 Acting: Stage Movement/Voice

This is a practicum course designed to introduce students to basic elements of the creative process of acting. Topics include kinesthetic awareness, techniques of acting theorists ranging from Michael Chekhov to Rudolph Laban, methods of character creation, elementary stage combat, improvisation, and voice and diction for the stage. Course culminates with student presentation of an original performance piece.

Cr 3.

## THE 130 Musical Theatre Workshop I

A course designed to give students practical application of theatre practices in the fields of acting, design, scene construction, costuming, properties, lighting, management, and directing. A laboratory course. Prerequisite: restricted to musical performance majors with an emphasis in musical theatre. The course may be repeated for credit. Cr 0.5 .

## THE 131 Musical Theatre Workshop II

A continuation of THE 130. Prerequisite: THE 130, restricted to musical performance majors with an emphasis in musical theatre. The course may be repeated for credit. Cr 0.5 .

## THE 132 Musical Theatre Workshop III

A continuation of THE 131. Prerequisite: THE 131, restricted to musical performance majors with an emphasis in musical theatre. The course may be repeated for credit.

Cr 0.5.

## THE 133 Musical Theatre Workshop IV

A continuation of THE 132. Prerequisite: THE 132, restricted to musical performance majors with an emphasis in musical theatre. The course may be repeated for credit.

Cr 0.5.

## THE 134F Production Management

A survey/lab course designed to familiarize students with the organizational procedures of the theatre production process. Major areas of study include stage management and theatre production management with some reference to video and film production management. Additional topics include the running of crews in properties and wardrobe, operation of sound and lighting equipment, and production scheduling. This course includes a crew requirement for a University production.

Cr 3.

## THE 135F Stagecraft

A lecture course in technical theatre and related topics relevant to technical direction. Specific areas of emphasis will include: theatre/stage terminology and organization, scene shop practices, and basic methods of construction, as well as methods of rigging and moving scenery for the stage. Cr 3.

## THE 139 Theatrical Make-up

A practicum course in the fundamentals of design and application of theatrical make-up. Specific areas of study will include the relationship of character analysis to make-up, techniques of highlight and
shadow, and make-up for youth, middle, and old age. Additional exercises introduce historical styles, creating a likeness, and nonrealistic make-up. Students will frequently apply theatrical make-up to their own faces in class.

## THE 141 Theatre Workshop I

A course designed to give students practical application of theatre practices in the fields of acting, design, scene construction, costuming, properties, lighting, management, and directing. A laboratory course. The course may be repeated for credit. Cr 0.5 .

## THE 142 Theatre Workshop II

A continuation of THE 141. Prerequisite: THE 141. The course may be repeated for credit. Cr 0.5 .

## THE 143 Theatre Workshop III

A continuation of THE 142. Prerequisite: THE 142. The course may be repeated for credit. Cr 0.5 .

## THE 144 Theatre Workshop IV

A continuation of THE 143. Prerequisite: THE 143. The course may be repeated for credit. Cr 0.5 .

## THE 150H Play Analysis

Representative dramas for the stage are read, discussed and criticized using the Aristotelian elements of plot, character, thought, diction, music, and spectacle as analytical tools. Prerequisite: English proficiency.

Cr 3.

## THE 170F Public Speaking

An introductory course in the art of public discourse. Primarily a lecture-performance course, students will learn the basics of informative, persuasive, and argumentative speaking, as well as the processes of problem-solving and informative discussion.

Cr 3.

## THE 171 Intercollegiate Forensics

A course designed to acquaint students with intercollegiate competition. Students will compete at various forensic tournaments throughout the East. Permission of instructor is required.

Cr 1.
THE 172 Intercollegiate Forensics
A continuation of THE 171.
Cr 1.
THE 173 Intercollegiate Forensics
Cr 1.
THE 174 Intercollegiate Forensics
A continuation of THE 173.

## THE 175F Oral Interpretation

A course in the assimilation and analysis of literary material (poetry, prose, drama) with emphasis on the techniques used in reading written material aloud to an audience. Designed to stimulate an understanding and responsiveness to literature and to develop the ability to convey to others, through oral reading, an appreciation of that literature. Cr 3.

## THE 203F Musical Theatre Dance

This course will build upon basic movement skills with an emphasis on the dance styles required for musical theatre. Techniques offered will include jazz, ballet, and tap. In addition to skill training, class projects will include the staging and choreography of musical theatre selections.

Cr 3.

## THE 220 Acting: Scene Study

This is a practicum course designed to introduce students to basic skills of stage movement and characterization through the use of scene work. The course evolves from simple storytelling through monologues to scenes. The emphasis is on internal preparation through developing a role as well as on external techniques for projecting that role. Prerequisites: THE 120 and 121 . Cr 3.

## THE 221 Acting: Stage Voice

This course emphasizes the development of the actor's voice, providing a progression of exercises to free and strengthen the voice as a tool of creative expression. The elements of vocal projection, range, diction, placement, and characterization will be explored.

Cr 3.

## THE 224 Acting for the Camera

This course will give students practical experience acting in videotaped dramatic scenes, industrial role playing, commercials, and narration. The course will emphasize the difference between stage and video/film acting techniques.

Cr 3.

## THE 226 Professional Audition and Marketing Techniques

This course will give students practical experience in and information related to seeking employment as an actor. The audition section will include simulations of stage and related film and video situations. The marketing section will provide strategies in the professional actor's most time-consuming endeavor: looking for work. Prerequisite: THE 220. Cr 3.

## THE 230 Designing for the Performer

This course offers the student an opportunity to explore the process of creating an environment for the performer, incorporating elements of scenic, costume, lighting, and audio design. Coursework includes the presentation of multimedia design projects.

Cr 3.

## THE 234 Theatre Management

Investigation of educational and professional theatre management roles including: managing director, business manager, box office manager, publicity director, and house manager. Practicum required. Cr 3.

## THE 235 Theatrical Drafting

A lecture/discussion/lab course in basic theatrical drafting/graphic practices relating to theatrical construction and design techniques. Concurrent enrollment in THE 236 Practicum in Design required. Prerequisite: THE 135F.

Cr 3.

## THE 236 Practicum in Design

A course focusing on the practical application of theory relevant to scenic, costume, lighting, and other theatre-related design topics.

Cr 1 .

## THE 250 Playwriting

A lecture-practicum course designed to acquaint the student with playwriting principles. Emphasis is placed on the one-act play form. Students will be required to complete a series of creative exercises culminating with writing of a one-act play. Prerequisite: THE 150 H .

Cr 3 .

## THE 271 Creative Drama

Study of methods for introducing young people to theatre as a total art form. Course to include the development of children's plays through improvisation as well as traditional children's literature. Work with children in various community settings will provide practical experience for the student. Cr 3.

## THE 275 Readers Theatre

This course teaches the process involved in arranging literature and other materials for performance or for use as a teaching tool. Elements of scripting, directing, and acting for simple, staged, chamber, and story theatre will be analyzed. Prerequisite: THE 175.

Cr 3.

## THE 303 Musical Theatre Performance

This course will provide students the opportunity to combine the skills of singing, acting, and dance as demanded by the art of musical theatre. In addition to vocal coaching, acting exercises, and choreography, students will be exposed to a variety of musical theatre genres and will be performing throughout the semester. The class will culminate with a public presentation. Prerequisites: THE 203 and THE 220. Cr 4.

## THE 321 Acting: Advanced Scene Study: Playwright Focus

This is a practicum for advanced actors, providing an in-depth scene study focusing on one or more playwrights. Emphasis will also be given to preparation for auditions. Prerequisite: THE 220. Cr 3.

## THE 322 Acting: Contemporary Methods

This course will introduce a variety of acting techniques developed by master artists, beginning with an overview of the Stanislavski System and advancing to the work of Lee Strasberg, Sanford Meisner, Uta Hagen, Augusto Boal, and others. These techniques will be applied to exercises, scenes, and monologues performed throughout the semester. Prerequisite: THE 220.

Cr 3.

## THE 325 Directing

This course is designed to train students in theatrical organization and rehearsed techniques. It encompasses composition, picturization, movement, and rhythm. Some practicum is involved. Prerequisites: THE 150H, THE 220, and THE 230.

Cr 3 .

## THE 331 Scene Design

Lecture and practicum in stage scenic design. Emphasis on the visual art and drafting of designs. Prerequisites: THE 150H and THE 230. Cr 3.

## THE 334G Costuming

This course introduces costume history and design. A survey outlines major trends in fashion from the Greeks to the 19th century. Students learn costume design by using the basic elements of line, color, and texture, by fulfilling the costume requirements encountered in scripts, and by analyzing characters. Drawing and rendering techniques are taught. The practicum (THE 104) supplements lectures by teaching sewing skills and allowing students to construct costumes for a University theatre production. Enrollment in THE 104 Practicum in Costuming is required for theatre majors and recommended for all costuming students, but need not be concurrent. Prerequisite: sophomore status or THE 101G. Cr 3.

## THE 335 Stage Lighting

Introduction to stage lighting design, elements of electricity, color, light sources, instrumentation, and control systems. Students will participate in lighting projects in practicum. Prerequisites: THE 150 H and THE 230.

Cr 3.

## THE 337 Sound Design

An introduction to the art and techniques of sound design. The class examines the creation of audio for a production environment, with emphasis on indus-try-standard recording techniques and communication tools, script and environmental analysis, and equipment and delivery systems. Prerequisites: THE 150 H and THE 230, or permission of instructor.

Cr 3.

## THE 350 Advanced Playwriting

A course for those who have taken THE 250 or have already written several plays. Emphasis will be placed on writing a full length play for possible production by the University. A better-than-average competence in writing dialogue is imperative. Prerequisite: THE 250.

Cr 3.

## THE 351 Dramatic Literature and Theatre History I: Origins to 15th Century

A study of the development of theatre and drama from its origins through the medieval period, covering ancient Greek, Roman, and Asian theatre and drama. Representative authors include Sophocles, Euripides, Plautus, Seneca, the Wakefield Master, and Chikamatsu. Critics include Aristotle and Horace. Prerequisites: THE 101G, and THE 150H or ENG 100C.

Cr 3 .

## THE 352 Dramatic Literature and Theatre History II: Renaissance to $\mathbf{1 8 0 0}$

A study of theatre and drama from the Renaissance, Neo-classical and Restoration periods to 1800. Representative authors include Machiavelli, de Vega, Shakespeare, Jonson, Racine, Moliere, and

Goldoni. Critics include Castevetro, Chapelain, Dryden, Johnson, and Diderot. Prerequisites: THE 101G, and THE 150H or ENG 100C. Cr 3.

## THE 353G Dramatic Literature and Theatre History III: Romantic to World War II

A study of theatre and drama from Romantic period to World War II, covering early realist and anti-realist theatre. Representative authors include Goethe, Hugo, Ibsen, Chekhov, Pirandello, Shaw and O'Neill. Critics include Wagner, Zola, Bergson, Brunetiere, and Nietzsche. Prerequisite: THE 101G, and THE 150 H or ENG 100C.

Cr 3.

## THE 354 Dramatic Literature and Theatre History IV: Absurdists to Post-Modernism

A study of theatre and drama from the post-war Absurdist and Brechtian Epic theatres to the present day. Representative authors include Brecht, Beckett, Genet, Williams, Miller, Shepard, Stoppard, and Shaffer. Critics include Artaud, Brecht, Esslin, Schechner, and Eco. Prerequisites: THE 101G, and THE 150H or ENG 100C.

Cr 3.

## THE 355 Journalistic Drama Criticism

This course will provide the student with a comprehensive analysis of the role of the writing critic in professional, community, educational, and amateur theatre. Stress will be placed upon development of a workable writing style. A minimum of five plays will be seen from which reviews will be generated. Prerequisite: THE 150H.

Cr 3.

## THE 372 Speaking to the Camera

This is an advanced public speaking and performance course introducing the student to the most common types of video presentations. Student performances of scripted speeches will be videotaped and evaluated based on content, delivery, and style. Prerequisite: THE 170F.

Cr 3.

## THE 373 Effective Public and Workplace Presentations

This course expands upon the performance skills taught in THE 170F. It will emphasize the development of greater expertise and performance ease in a variety of presentation styles, as well as explore the use of visual aids consistent with workplace and public presentations. Students will be required to attend and critique community-based public speeches, as well as to analyze the work of their peers. Prerequisite: THE 170F.

Cr 3.

## THE 375 Performance Arts

This theory and practice course allows students to experiment with the aesthetic interpretation of texts, focusing on extra-textual elements of presentation (such as sound, visual symbols/ images, spatial relations, hand-held light) in the staging of poetry, fiction, non-fiction, and drama. Theoretical and practical readings accompany in-class exercises and blackbox performances that strengthen skills in acting, directing, oral interpretation, forensics, play
analysis, and design. Students elect a directing or a performance emphasis.

Cr 3.

## THE 420 Acting: Styles

This course will examine the styles of acting found in the Classical (Greek and Roman), Elizabethan, and eighteenth- and nineteenth-century dramas. Prerequisite: THE 220.

Cr 3.

## THE 421 Topics in Acting and Performance

An intensive study of a particular acting or performance technique chosen at the discretion of the instructor in accordance with his or her expertise and interests. May be repeated as topics vary, for a maximum of 9 credits. Prerequisite: THE 220.Cr 3.

## THE 430 Topics in Design

A seminar in advanced design practices and a continuation of THE 330 and/or 332. The course will stress improving design and presentation skills by developing and presenting design projects. The design project will involve theatrical drafting, perspective sketching, rendering and model making techniques as required in the areas of specialty. Students will be required to work in two of the three areas of theatrical design: costume design, lighting design, or scenery design. In addition, historical styles will be surveyed in a lecture/discussion format. This discussion will include the impact of social and political attitudes as well as physical style and how these aspects may be applied to contemporary design. Prerequisite: instructor permission only. Cr 3.

## THE 434 Advanced Costuming

This course will continue the study of costume design begun in THE 231. The focus of class work and projects will be on specific problems encountered in costuming for the theatre. Lecture material and design assignments will be drawn principally from the twentieth century, though other time periods may occasionally be used. Students will work to improve rendering techniques as well as analytical skills. Concurrent enrollment in Theatre Workshop will provide a laboratory component to classroom study. Prerequisite: THE 334G.

Cr 3.

## THE 451 Topics in Dramatic Literature and Theatre History

An intensive study of a particular playwright, group, movement, or historical period chosen at the discretion of the instructor in accordance with his/her expertise and interests. May be repeated as topics vary for a maximum of nine credits. Prerequisites: THE 101G, and THE 150 H or ENG 100C. Cr 3.

## THE 490 Independent Study

Students should contact the Department regarding information for independent study. Prerequisite: permission of the Theatre Department. May be repeated for credit.

## THE 491 Project I

Investigation of special topics, or execution of special
projects that fall within the purview of theatre. Students may select an interior intra-departmental committee of three professors to approve, assist, and oversee the project. Prerequisites: junior and senior standing; precise definition of project and unanimous permission of committee. Students must obtain rules for this course from the department chairman. May be repeated for credit. Prerequisite: permission of the Theatre Department. Credit hours arranged.

## THE 492 Theatre Internship

Students will assume a full one-semester internship with a professional theatre or Readers Theatre Company. Students will be involved in management, acting, directing, or technical theatre as a member of the company. Each student will be assigned a faculty advisor who will make a biweekly evaluation of ongoing work. Participants will be required to keep a diary and/or portfolio to be reviewed by the faculty of the Theatre Department at the conclusion of the internship. All creative work done by the student will be evaluated by the advisor
and at least one other, or if possible, all members of the department. Prerequisite: permission of the Theatre Department. May be repeated for credit. To be arranged.

## THE 493 International Tour

Students in this course will rehearse an original or scripted production which will be performed at USM and then transported for presentation to an international venue determined by the instructor. Prerequisite: instructor permission only. Cr 3.

## THE 494 Theatre Institute: Techniques of Michael Chekhov

This course provides an intensive overview of the acting techniques created by Michael Chekhov. Areas of focus will include characterization, scene study, stage movement and voice, and teaching methods. The course will conclude with a works-inprogress performance. Typically offered during the summers only. May be repeated for a maximum of nine credits. Prerequisite: THE 220.

Cr 3.

# College of Education and Human Development 

Dean: Betty Lou Whitford; Assistant Dean for Finance and Administration: Robin Day; Associate Dean and Director of Teacher Education: Catherine Fallona; Director of Student Affairs: Kimberly Warren; Director of Professional Development Center: George C. Lyons; Director of Center for Education Policy, Applied Research and Evaluation: David L. Silvernail

The College of Education and Human Development (CEHD) is proud to continue the strong commitment to education and service demonstrated by USM's predecessor institutions, beginning with Gorham Normal School in 1878. The College provides for the preparation and professional growth of educators and human development professionals through collaborative efforts with schools and agencies; other colleges at USM; local, state, and national educational networks; and the communities of southern Maine.

Working closely with the College of Arts and Sciences and School of Applied Science, Engineering, and Technology, the CEHD oversees the preparation of teachers and educators for all areas of K-12 education. Our graduates are well-grounded in their academic disciplines and in the educational knowledge and practices supportive of quality teaching and leadership. Professional preparation reflects the College's commitment to school-university collaboration, equity in student learning, and reflective/critical inquiry at all levels of education.

All of the College's degree programs in K-12 education are accredited by the Teacher Education Accreditation Council (TEAC).

# Department of Teacher Education 

## Director: Catherine Fallona

Chair: Melody Shank, 500 Bailey Hall, Gorham
Professors: Kimball, Whitford; Associate Professors: Davis, Fallona, Jones, Kuech, Ross, Shank, Whitney; Assistant Professors: Canniff, Hitchens; Lecturer: Red; Professors Emeriti: Austin, Colucci, Costello, Neuberger

The College of Education and Human Development carries out the University's mission to prepare teachers through the Department of Teacher Education.

The College offers programs leading to teacher certification in Maine. Students graduating from these programs will have a strong liberal arts background; the benefit of extended experiences with students in K-12 schools; the ability to think reflectively and critically; and the opportunity to build on their certification coursework and internships through continuous study and support at the graduate level and during the first years of teaching.

The Teachers for Elementary and Middle Schools (TEAMS) is the Department of Teacher Education's undergraduate pathway to K-8 general, K-8 special education, and K-12 English as a Second Language teacher certifications. The TEAMS program includes coursework in an academic major leading to a degree in a liberal arts field and a professional program of teacher certification leading to a state of Maine teacher certification. The TEAMS program includes three options for teacher certification: the General Elementary Education (certification in general elementary grades K-8) pathway, the Unified Elementary General and Special Education pathway (dual certification in general elementary grades K-8 and special education grades K-8), and the Unified Elementary General and English as a Second Language pathway (dual certification in general elementary grades K-8 and English as a Second Language grades K-12).

The program is designed so that students can complete their undergraduate degree and certification requirements in four-and-one-half to five years.

The Extended Teacher Education Program (ETEP) is offered at the post-baccalaureate level and has, since 1991, been the primary avenue for students seeking certification to teach at levels K-8, 7-12, or K-12. Students in ETEP learn in partner schools
and engage in coursework and internship experiences that permit the integration of theoretical and practical learning. Graduates of ETEP have a solid background in at least one academic discipline, as well as in the educational knowledge and practices supportive of quality teaching. For more information about ETEP, see the USM graduate catalog, visit the ETEP Web site at www.usm.maine.edu/cehd/TED/graduate.htm, or call the Teacher Education advisor at (207) 780-5413.

## Teachers for Elementary and Middle Schools (TEAMS)

This program is designed for students who enter USM with a strong interest in teaching at the elementary school level. Students in this program receive intensive advising and mentoring throughout their undergraduate years, strong subject area preparation, and yearly field experiences in selected partner school sites.

Each year students take complementary coursework in the liberal arts, courses toward an academic major, and a professional preparation strand which includes an integrative seminar designed to help students make connections among the disciplines they are studying. Students graduate with a bachelor's degree in a major of their choice, other than education. In addition, they complete at least a year-long internship at one of USM's partner school sites that culminates in a recommendation for teacher certification. Some coursework is at the graduate level and counts toward the master of science in education degree. This is a four-and-a-half-year to five-year program which includes requirements for teacher certification. Students who complete the TEAMS program are encouraged to apply to the master's in teaching and learning program to complete their master's degree during their initial years of professional teaching.

Acceptance into this program is contingent upon admission to USM and successful completion of the University's writing and mathematics proficiency requirements. Other acceptance criteria include: a strong GPA from previous study and fewer than 60 previously earned college credits, standardized test scores, writing ability, recommendations, and experience working with children. Students interested in this program should contact the Teacher Education Department, 500 Bailey Hall, Gorham campus, or call (207) 780-5413 for application instructions, or visit www.usm.maine.edu/cehd/TED/undergraduate.htm.

| TEAMS General |  |  |
| :--- | :--- | :--- |
| Elementary (K-8) Course Requirements: |  |  |
| EDU | $120 / 121$ | Early Literacy Development Seminar and Field Experience |
| EDU | 200 | Education in the United States |
| HRD | 200J | Human Growth and Development |
| EDU | $211 / 212$ | Culture and Community Seminar and Field Experience |
| EDU | $220 / 221$ | Middle School Community Seminar and Field Experience |
| EDU | $320 / 321$ | Applied Skills for Teaching and Learning Seminar and Field |
|  |  | Experience |
| EDU | 390 | Topics in Education: Portfolio Development |
| SED | 540 | Nature and Needs of Learners who are Exceptional |
| EDU | 505 | Teaching Mathematics K-8 |
| EDU | 541 | Seminar in Teaching, Learning, and Assessment I |
| EDU | 542 | Seminar in Teaching, Learning, and Assessment II |
| EDU | 544 | Applied Pedagogy |
| EDU | 551 | Teaching Social Studies K-8 |
| EDU | 552 | Teaching Science K-8 |
| EDU | 565 | Teaching Reading |
| EDU | 566 | Introduction to the Writing Process |
| EDU | 543 | Internship in Elementary Education, 6 cr. |
|  |  |  |
| TEAMS | Unified | General Elementary and Special Education (K-8) Course |
| Requirements: |  |  |
| EDU | $120 / 121$ | Early Literacy Development Seminar and Field Experience |
| EDU | 200 | Education in the United States |
| HRD | $200 J$ | Human Growth and Development |
| EDU | $211 / 212$ | Culture and Community Seminar and Field Experience |
| EDU | $220 / 221$ | Middle School Community Seminar and Field Experience |
| EDU | $320 / 321$ | Applied Skills for Teaching and Learning Seminar and Field |


| EDU | 390 | Topics in Education: Portfolio Development |
| :---: | :---: | :---: |
| EDU | 505 | Teaching Mathematics K-8 |
| EDU | 541 | Seminar in Teaching, Learning, and Assessment I |
| EDU | 551 | Teaching Social Studies K-8 |
| EDU | 552 | Teaching Science K-8 |
| EDU | 562 | Cultural and Linguistic Diversity |
| EDU | 565 | Teaching Reading |
| EDU | 566 | Introduction to the Writing Process |
| EDU | 543 | Internship in Elementary Education |
| EDU | 600 | Research Methods and Techniques |
| SED | 515 | Positive Behavioral Interventions and Supports |
| SED | 518 | Instructional Strategies for Learners with Special Needs |
| SED | 527 | Understanding and Teaching Students with Diverse Abilities in the General Education Curriculum |
| SED | 543 | Research and Equity in Educating Diverse Learners |
| SED | 653 | Assessment of Academic Achievement |
| SED | 682 | Special Education Law |
| SED | 688 | Special Education Internship, 6 cr. |
| SED | 699 | Directed Study |
| TEAMS Unified General Elementary (K-8) and English as a Second Language |  |  |
| Education (K-12) Course Requirements: |  |  |
| EDU | 120/121 | Early Literacy Development Seminar and Field Experience |
| EDU | 200 | Education in the United States |
| HRD | 200J | Human Growth and Development |
| EDU | 211/212 | Culture and Community Seminar and Field Experience |
| EDU | 220/221 | Middle School Community Seminar and Field Experience |
| EDU | 320/321 | Applied Skills for Teaching and Learning Seminar and Field Experience |
| EDU | 390 | Topics in Education: Portfolio Development |
| EDU | 505 | Teaching Mathematics K-8 |
| EDU | 541 | Seminar in Teaching, Learning, and Assessment I |
| EDU | 543 | Internship in Elementary Education |
| EDU | 551 | Teaching Social Studies K-8 |
| EDU | 552 | Teaching Science K-8 |
| EDU | 558 | Content Based Curriculum for English Language Learners |
| EDU | 559 | Aspects of Reading for Multilingual Learners |
| EDU | 561 | Aspects of English Language |
| EDU | 562 | Cultural and Linguistic Diversity |
| EDU | 563 | ESL Testing and Assessment |
| EDU | 565 | Teaching Reading |
| EDU | 566 | Introduction to the Writing Process |
| EDU | 600 | Research Methods and Techniques |
| EDU | 607 | Teacher Research in Literacy |
| EDU | 640 | ESL Internship |
| SED | 527 | Understanding and Teaching Students with Diverse |
|  |  | Abilities in the General Education Curriculum |
| SED | 543 | Research and Equity in Educating Diverse Learners |

## Art Education

The Department of Art in the College of Arts and Sciences offers a concentration in art education for bachelor of fine arts candidates who wish to teach art. Information on this program is included in the Department of Art section of this catalog.

## German, Latin, and Spanish Education

In collaboration with the Department of Teacher Education, the Department of Modern and Classical Languages and Literatures offers programs in K-12 German, Latin, and Spanish education. Information about this program is included in the Department of Modern and Classical Languages and Literatures section of this catalog.

The School of Music in the College of Arts and Sciences offers a teacher preparation program leading to a bachelor of music in music education degree. Information on this program is included in the School of Music section of this catalog.

## Secondary Mathematics Education

In collaboration with the Department of Teacher Education, the Department of Mathematics offers a program in secondary mathematics education. Information about this program is included in the Department of Mathematics section of this catalog.

Minor in Educational Studies
Admission into the minor in educational studies has been suspended. Students who are already in the program are not affected by this decision, and will be able to complete it as planned. A final decision on whether to remove the minor in educational studies as an undergraduate option is pending.

## Certificate Program in Athletic Coaching

This program is designed to prepare students for certain coaching responsibilities in schools and recreational programs. The curriculum includes an introduction to the organization and administration of athletics as well as practical work in assisting coaches in selected sports. Attention is also given to the prevention and care of the most common injuries occurring in athletic programs. Students may take courses as electives or as part of the certificate program.

A certificate will be presented to students completing the minimum 18-hour program. In addition, the proper notation will be made on the student's official transcript indicating proficiency in the area of athletic coaching as determined by the certificate program. For more information about this program please call (207) 780-5997 or visit www.usm.maine.edu/athl/Services/certification.html.

Course of Study in Athletic Coaching (18-credit program)
Required
PHE 203 Athletic Training for Coaches
PHE 302 Coaching Philosophy and Fundamentals
PHE $314 \quad$ Organization and Administration of Athletics
PHE 389
Electives
PHE 106
PHE 198
PHE 303
PHEX 309
PHE 311
PHE 312
PHE 315 Coaching and Officiating Field Hockey
PHE 316 Coaching and Officiating Volleyball
PHE 335 Coaching and Officiating Baseball and Softball
PHE 391 Field Experience/Internship

## EDU 100 Exploring Teaching as a Profession

An exploration of teaching as a professional career through field-based experiences and faculty-led seminars.

## EDU 120 Early Literacy Development

Through this course students will develop a basic understanding of children's literacy development through the integration of educational theory and a field experience in a public school setting. The main objective of the course is for students to develop an understanding of how children's literature can support growth in reading, writing, and oral language in elementary school children. In order to do this, students will learn about stages of literacy development, characteristics and qualities of children's literature, and ways to integrate the two in classroom settings. Co-requisite: EDU 121. Prerequisite: open to matriculated students in TEAMS or by Teacher Education Department (TED) permission. Cr 3.

## EDU 121 Early Literacy Development Field Experience

This K-5 public school-based field experience is designed to develop in students a basic understanding of children's literacy development through the integration of educational theory into a field experience in a public school setting. The main objective of the field experience is for students to develop an understanding of how children's literature can support growth in reading, writing, and oral language in elementary school children. Co-requisite: EDU 120 Prerequisite: open to matriculated students in TEAMS or by Teacher Education Department (TED) permission.

Cr 1.

## EDU 200 Education in the United States

This course engages students in the study of U. S. education, schooling, and teaching from social, historical, political, and legal perspectives. Special emphasis is placed on identifying pivotal issues and problems with which our public educational system has grappled both in the past and in the present. Through research initiatives and related investigations, students develop the necessary background to analyze and evaluate topics under study, and formulate and defend positions on educational issues. Cr 3 .

## EDU 210 Theoretical Foundations of Learning

This course is intended for those exploring teaching as a career, providing an examination of theories of learning and their application to teaching. Cr 3.

## EDU 211 Culture and Community

This course supports students in examining and reflecting upon issues related to cultural diversity and supports them in developing culturally responsive teaching practices. Prerequisite: open to matriculated students in TEAMS, the Secondary Mathematics Education TED Pathway, the Modern and Classical Languages and Literature (MCLL) Education TED Pathway, or by Teacher Education Department (TED) permission. Co-requisite: EDU 212. Cr 3.

## EDU 212 Culture and Community Field Experience

This field experience supports students in examining the relationship between theory and practice through field observations in community settings related to cultural diversity and developing culturally responsive teaching practices. Prerequisite: open to matriculated students in TEAMS, the Secondary Mathematics Education TED Pathway, the Modern and Classical Languages and Literature (MCLL) Education TED Pathway, or by Teacher Education Department (TED) permission. Co-requisite: EDU 211.

Cr 1.

## EDU 220 Middle School Community

This course extends students' knowledge and understanding of the developmental characteristics of early adolescents and supports the students' examination of how the contexts of middle schools and the best teaching practices in middle schools are responsive to the developmental characteristics and needs of early adolescents. Prerequisite: Open to matriculated students in TEAMS, the Secondary Mathematics Education TED Pathway, the Modern and Classical Languages and Literature (MCLL) Education TED Pathway, or by Teacher Education Department (TED) permission. Co-requisite: EDU 221. Cr 3.

## EDU 221 Middle School Community Field Experience

This course supports students in examining the relationship between theory and practice through field placements in middle school classrooms. These classroom experiences extend students' knowledge and understanding of the developmental characteristics of early adolescents and support the students' examination of how the contexts of middle schools and the best teaching practices in middle schools are responsive to the developmental characteristics and needs of early adolescents. Prerequisite: open to matriculated students in TEAMS, the Secondary Mathematics Education TED Pathway, the Modern and Classical Languages and Literature (MCLL) Education TED Pathway, or by Teacher Education Department (TED) permission. Co-requisite: EDU 220.

Cr 1.

## EDU 300 Educational Media and Technology

An examination of educational media and technology with special emphasis on school-based developments and applications.

Cr 3.

## EDU 320 Applied Skills for Teaching and Learning

This course supports students in examining the relationship among the theories of human development, how people learn, and teaching and learning. Prerequisite: open to matriculated students in TEAMS, the Secondary Mathematics Education TED Pathway, the Modern and Classical Languages and Literature (MCLL) Education TED Pathway, or by Teacher Education Department (TED) permission. Co-requisite: EDU 321.

Cr 3.

## EDU 321 Applied Skills for Teaching and

 Learning Field ExperienceThis course supports students in examining the relationship between theory and practice through observation of and interaction with K-8 public school students and teachers. This field experience is designed to develop in students a basic understanding of fostering a positive classroom environment and instructional planning and assessment. Prerequisite: open to matriculated students in TEAMS, the Secondary Mathematics Education TED Pathway, the Modern and Classical Languages and Literature (MCLL) Education TED Pathway, or by Teacher Education Department (TED) permission. Co-requisite: EDU 320.

Cr 1.

## EDU 323 Independent Study in Teacher Education

This course provides students the opportunity to pursue a project independently, planning and exploring an area of interest within the field of teacher education. Most independent study projects are library based; all are intellectually sound and reflect a high caliber of performance. Specific content and methods of evaluation are determined in conjunction with the instructor. An approved proposal is a necessary prerequisite to registration. Prerequisite: matriculation in an education program and junior or senior standing.

Cr 1-3.

## EDU 324 Student Teaching

For students matriculated in a USM undergraduate teacher education program in music education, technology education, or art education, a supervised student teaching experience of one full semester, carried out in an off-campus field setting, is required. Students must have met their program's requirements to register for student teaching. Prerequisites: vary according to major. This course requires health insurance.

Cr 12.

## EDU 335 Teaching Children with Exceptional Needs

This course is an introduction to the unique characteristics and needs of special education students. Topics will include understanding characteristics of students with disabilities, implementing instructional strategies, working with parents, and understanding state and federal laws and policies. Prerequisite: matriculation in an education program or by Department permission.

Cr 3.

## EDU 336 Children's Literature

A survey of children's literature with special emphasis on the selection of appropriate books for children from preschool through the elementary school years.

Cr 3 .

## EDU 390 Portfolio Development

Various uses, purposes, formats, and criteria for developing and evaluating portfolios will be explored. Portfolio development as a reflective, dynamic mode of presenting one's teaching and learning experiences
will be emphasized. Each student will develop and present a portfolio during the course. Prerequisite: open to matriculated students in TEAMS, the Secondary Mathematics Education TED Pathway, the Modern and Classical Languages and Literature (MCLL) Education TED Pathway, or by Teacher Education Department (TED) permission. Cr 3.

## EDU 505 Teaching Mathematics K-8

This course provides experiences to develop and apply mathematical content knowledge and pedagogical skills in elementary and middle school classrooms. Major areas of focus include: how students learn mathematics, conceptual development of mathematical understandings, problem-solving instructional strategies, appropriate and effective uses of tools and technology, assessment of student learning, and providing equitable access to learning for all students. Prerequisite: open to matriculated interns in ETEP and TEAMS programs or by permission of the Teacher Education Department.

Cr 3.

## EDU 541 Seminar in Teaching, Learning, and Assessment I

The primary purpose of this course is to build a learning community where members of the cohort are supported in their internship through the assessment system. The assessment system includes the video reflections and journals as well as a sequential system of conferences, a collection of evidence, and observations. This course is based on helping the participants develop their personal philosophy of teaching and perfect their craft through ongoing discourse, reflection, and inquiry. Specific topics include instruction, lesson and unit planning, classroom management, assessment, diversity, technology and professionalism. Prerequisite: open to matriculated students in TEAMS and ETEP, the Secondary Mathematics Education TED Pathway, the Modern and Classical Languages and Literature (MCLL) Education TED Pathway, or by Teacher Education Department (TED) permission. Co-requisite: EDU 544, EDU 644 or EDU 613 . Cr 3.

## EDU 542 Seminar in Teaching, Learning and Assessment II

The primary purpose of Seminar II is to sustain a learning community where members of the cohort are supported in their internship through the assessment system. This course is based on helping the participants develop their personal philosophy of teaching and professional portfolio. Participants perfect their craft through ongoing discourse, reflection and inquiry. Specific topics include instruction, lesson and unit planning, classroom management, assessment, diversity, technology and professionalism. Prerequisite: open to matriculated students in TEAMS and ETEP, the Secondary Mathematics Education TED Pathway, the Modern and Classical Languages and Literature (MCLL) Education TED Pathway, or by Teacher Education Department (TED) permission. Co-requisite: EDU 613 or EDU 644.

Cr 3.

## EDU 543 Professional Internship in Elementary

## Education

This course is a full-time, supervised internship experience in applying knowledge and skills to the practice of teaching. An intern completes semester long classroom internship in which she/he is assigned to a mentor teacher and classroom. The intern completes a minimum of two weeks of lead teaching. Prerequisite: open to matriculated interns in TEAMS.

Cr 3-6.

## EDU 544 Applied Pedagogy

This course is a part-time, supervised internship experience in applying knowledge and skills under study in coursework to the practice of teaching. An intern completes a semester-long classroom placement in which she/he is assigned to a mentor teacher in an elementary, middle, or secondary classroom in a school. The intern completes a minimum of one week of lead teaching. Prerequisite: open to matriculated interns in ETEP and TEAMS or by permission of the Teacher Education Department. Co-requisite: EDU 541.

## EDU 551 Teaching Social Studies K-8

This course is designed to provide students with a general understanding of the guiding principles and the strands of social studies. Students will gain a working knowledge of the best practices in social studies instruction and the goals of social studies education. Students will create lesson plans and incorporate appropriate instructional methods and materials as part of the course requirements. Prerequisite: pen to matriculated interns in the ETEP and TEAMS programs or by permission of the Teacher Education Department..

Cr 3.

## EDU 552 Teaching Science K-8

The course has an interactive laboratory/discussion field-based approach, modeling and focusing on the teaching and learning aspects of science in the elementary and middle school. The emphasis is on content, process, and methodology. The course will be framed by the Department of Teacher Education's Core Practices, Maine's Learning Results, the National Science Education Standards and by the students' goals about the teaching and learning of science. Students will learn strategies for planning and providing core academic and behavioral experiences to all learners and differentiated academic and behavioral experiences for learners with special needs. Prerequisite: open to matriculated students in the ETEP or TEAMS programs, or by Teacher Education Department permission.. Cr 3.

## EDU 558 Content Based Instruction for English Language Learners

This course examines the knowledge and practice necessary for the development and implementation of comprehensible content for English Language Learners (ELLs) in the public school setting. It explores the theoretical background of and the strategies for insuring competent delivery of appro-
priate language and content in a multilingual context. A co-constructive approach incorporating the backgrounds and experiences of course participants is the principal methodology. The pedagogy incorporates principal characteristics of curriculum design applied to learners from different linguistic and sociocultural backgrounds. Cr 3 .

## EDU 559 Aspects of Reading for Multilingual Learners

This course examines the role of literacy in the public school classroom (K-12) for linguistically and culturally diverse learners. A critical analysis of the reading process as it applies to young learners, as well as application to older learners with varying degrees of first language literacy, is a major emphasis. An examination of first language influences on reading in a second language is a major emphasis. Cr 3.

## EDU 561 Aspects of the English Language

This is a practical course for the prospective or continuing ESL teacher which will examine the various linguistic elements of the English language and their relevance to the teaching process of English as a Second or Other Language. We will be focusing on analyzing the grammatical and phonological aspects of the English language as well as looking at morphology and lexis, semantics, and such social aspects of the language as register and speech variation. Primary emphasis will be placed on a better understanding of English through class discussion, oral presentations, and practical application for teaching in the ESL classroom.

Cr 3.

## EDU 562 Linguistic and Cultural Diversity in the Classroom

This course examines the nature of language and cultural differences among learners of various ethnic and racial backgrounds. The exploration of diversity provides opportunities for participants to develop a personal awareness of the role of cultural conditioning in classroom encounters; to reflect on and to confront personal biases as they relate to teaching; to acquire the skills and resources for an ethno-relative approach to delivering instruction; and to make language- and topic-related choices compatible with learner differences. Cr 3.

## EDU 563 ESL Testing and Assessment

The focus of this course is on learner-centered approaches to constructive evaluation of language and content. Emphasis is predominantly on informal authentic, performance-based assessment practices but also include the role of criterion-and normbased formal testing procedures within a holistic evaluation framework. Comprehensive evaluation of language involves the whole learner, including an integrated approach incorporating socio-cultural, academic, and cognitive perspectives. Also included is an understanding of biases influencing formalized second language testing.

Cr 3.

## EDU 565 Teaching Reading

This course traces the development of reading and
examines conditions that foster its growth. Topics relate to major stages of literacy development and include: preschool influences on literacy, phonemic awareness and phonics, the development of fluency, vocabulary development, comprehension, study skills, and refinement of reading. Major emphasis is on evolving a balanced approach to literacy instruction, creating communities of learners, scaffolding reading experiences, designing effective organization and management formats, and connecting literacy instruction to assessment. Prerequisite: matriculated in ETEP, TEAMS, or the Teacher Education Department Modern and Classical Languages Education pathway, or by permission of the Teacher Education Department.

Cr 3.

## EDU 566 Introduction to the Writing Process

This course is designed to introduce pre-service teachers to the development of writing proficiencies through a process approach. A thorough study of current research and theory relating to the composition process leads to the development of instructional programs that will foster students' growth as writers. Many strategies are modeled to meet the needs of diverse learners and an exploration of technology and standards is included. Students gain experience with the writing process through participation in an ongoing, in-class writing workshop. Prerequisite: matriculated in ETEP, TEAMS, or the Teacher Education Department Modern and Classical Languages Education pathway, or by permission of the Teacher Education Department.

## HRD 200J Human Growth and Development

Please refer to the course description in the Department of Human Resource Development section that follows.

Cr 3.

## PHE 106 NCAA Life Choices

This course is designed for student athletes in their first or second year at USM. The goal of the course is to enable students to develop their academic potential and to realize their personal and athletic goals during their college experience. Through large and small group work, topical readings, and community service projects, students will clarify goals, values, healthy lifestyles, leadership, and study skills. Prerequisite: open to first and second year students only.

Cr 3.

## PHE 198 Physiology of Health Fitness

The purpose of this course is to provide the student with a scientific background in exercise physiology and health concepts in order to develop and maintain a lifetime program of high level physical fitness and quality health.

Cr 3.

## PHE 203 Athletic Training for Coaches

This introductory course in sports medicine/athletic training will provide the student with information about prevention and management of sports-related injuries. Pertinent anatomy and common injuries will be discussed. This course is geared toward indi-
viduals involved in or pursuing allied health professions as well as coaching or teaching fields. Cr 3.

## PHE 302 Coaching Philosophy and Fundamentals

This course covers various approaches to planning, organizing, and implementing practice sessions in preparation for athletic competition. The psychological and emotional aspects of coaching are also investigated. One segment of the course will be concerned with society's view of coaching as illustrated by today's literature.

Cr 3.

## PHE 303 Coaching and Officiating Basketball

Coaching philosophy, coaching style, choosing a team, individual fundamentals, team play development, and the ability to organize and maintain a quality program will be stressed. The course will also cover rules of basketball and techniques of officiating.

Cr 3.

## PHEX 309 Coaching and Officiating Track and Field

Part of the University of Southern Maine's coaching certification program, this course is designed to prepare students for track and field, and cross country coaching at the high school and/or middle school levels. Particular aspects of the sport will not be discussed in detail. Rather, the course is intended as an overview of coaching philosophies, sports science, and the training required for each event. Students will have an opportunity to explore in depth areas of interest.

Cr 3.

## PHE 310 Experiential Learning: Logistics and Skills

## Construction and Use

Participants may expect to gain hands-on knowledge and experience through participation in all phases of course construction, maintenance, and operation. Learning outcomes include the importance of operational safety considerations and appropriate selection of materials. Cr 3-6.

## Sea Kayaking

Designed to provide sea kayak paddling and rescue instruction, chart reading, and basic navigational techniques combined with team building concepts. Includes expedition planning, low/no impact island camping, and coastal/estuary exploration. Fee course.

Cr 3.

## PHE 311 Coaching and Officiating Soccer

The course will cover individual techniques and team tactics, drills to implement these techniques and tactics, practice and season organization and methods of starting, maintaining and improving programs at various levels. The course will also cover rules of soccer and techniques of officiating. Cr 3.

## PHE 312 Coaching and Officiating Football

Emphasis on the methods of teaching and coaching
football. Offense and defense, player-coach relationship, team selections, planning of practice sessions and game situations will be areas of concentration. The course will also cover rules of football and techniques of officiating.

Cr 3.

## PHE 314 Organization and Administration of Athletics

This course covers the principles and practices of athletic administration as related to middle schools, junior and senior high schools.

Cr 3.

## PHE 315 Coaching and Officiating Field Hockey

Emphasis on the methods of teaching and coaching field hockey. Offense and defense, player-coach relationship, team selections, planning of practice sessions and game situations will be areas of concentration. The course will also cover rules of field hockey and techniques of officiating. Cr 3.

## PHE 316 Coaching and Officiating Volleyball

Emphasis on the methods of teaching and coaching volleyball. Offense and defense, player-coach relationship, team selections, planning of practice sessions and game situations will be areas of concentration. The course will also cover rules of volleyball and techniques of officiating.

Cr 3.

## PHE 325 Workshop in Experiential Education

This course is designed to promote personal growth through a group workshop in experiential education. Experiential education is an adventure-based model of the learning process; learning takes place through action. Learning opportunities in this course will explore relationship building, small group problem solving, personal and group challenge as a concept, taking action, taking risks, reflection, metaphorical transfer, and action planning. Course is offered in a classroom setting and at the University's Action Learning Center in Freeport, Maine. Low and high ropes course elements are included in the curriculum. Students are supported in challenge-level choices. Fee course.

Cr 3 .

## PHE 335 Coaching and Officiating Baseball and Softball

The course will cover individual and team techniques, drills to implement these techniques, practice organization and methods of starting, maintaining and improving programs at various levels. The course will also cover rules of baseball and softball plus techniques of umpiring.

Cr 3 .

## PHE 343 Experiential Education/Internship

This experiential education internship will be codesigned by the student and the instructor to include elements of study/practicum in the following areas: ropes course construction and operations, experiential education group facilitation, appropriate application of experiential models for varied demographics and special interest groups, in-depth research of experiential education concepts and benefits, expedition
planning, gear knowledge and selection, and hardskill building in the disciplines of camping, climbing, mountaineering and/or kayaking, wilderness travel and trail maintenance, and environmental awareness. Prerequisite: instructor permission.

Cr 3-9.

## PHE 353 Teacher Training in Experiential Education

This course focuses on facilitating techniques for leading groups through experiential activities. Group assessment, program design, sequencing, briefing, debriefing, group management, safety and technical skills are included in the course curriculum. Methods and techniques for utilizing no/low-prop field activities, indoor activities and low and high ropes course elements will be explored and applied to a wide range of groups. Students will discover ways to maximize the transfer of learning from the activities to best meet the goals of the participating group. A practicum component is included where students get hands-on facilitating experience. Students may gain additional practicum time and perform related research for additional credits. Prerequisite: PHE 325 or instructor permission.

Cr 3-6.

## PHE 389 First Aid and CPR

This course will cover the topics prescribed by the American Red Cross including respiratory emergencies, artificial respiration, wounds, poisoning, water accidents, drugs, burns, sport safety issues, and CPR. Successful completion of the course requirements will lead to: Red Cross First Aid, CPR, and Sport Safety certification.

Cr 3.

## PHE 391 Field Experience/Internship

Practical field work in a coaching area. The student will be assigned as an assistant coach in a sport for a season. Supervision, evaluation, and guidance of the student will be provided by a staff member who is responsible for that coaching area. Prerequisites: PHE 203, PHE 302, PHE 314. Restricted to students in coaching certificate program. Cr 1-6.

## PHE 398 Independent Study in Physical Education

Provides students who have demonstrated critical and analytical capability an opportunity to pursue a project independently, charting a course and exploring an area of interest, bearing upon it previous course experience and emerging with an intellectually sound, coherent synthesis reflecting a high caliber of performance. Prerequisite: permission of instructor.

Cr 1-6.

## SED 515 Positive Behavioral Interventions and Supports

This course examines the foundations and essential features of Positive Behavioral Support at two levels; classroom and individual. Students will gain an understanding of basic principles and measurement of behavior and conduct applied projects that include creating, implementing, and evaluating data-driven intervention plans.

Cr 3.

## SED 518 Instructional Strategies for Learners with Special Needs

The primary goal of this course is to learn and analyze principles and skills of teaching and learning which are effective with students with a wide range of abilities. The course will include: (a) applying and analyzing principles of learning in designing, leading, and assessing a learning environment; (b) applying and analyzing assessment strategies in establishing a cycle of continuous improvement and progress for students; (c) applying strategic learning strategies, differentiated instruction and effective instructional strategies. Participants will work individually and cooperatively in reading and analyzing current learning theory; designing, leading, and assessing learning activities. Participants will complete a minimum of 6 hours of practicum experience. Prerequisite: open to matriculated interns in ETEP and TEAMS, or by Teacher Education Department (TED) permission.

Cr 3.

## SED 527 Understanding and Teaching Students with Diverse Abilities in the General Education Curriculum

This course develops knowledge of the characteristics of students with disabilities, students identified as gifted and talented, and students who are English Language Learners. That knowledge is used to examine cultural, developmental, and instructional issues and practices for providing students equitable access to an appropriate education. Students learn about prin-
ciples and practices of universal design in learning and culturally responsive pedagogy. Upon profiling the developmental, cultural, and learning characteristics of students in their internship placements, students use the principles of culturally responsive pedagogy and universal design in education to create and implement lessons and curriculum in a classroom. Prerequisites: open to matriculated interns in the ETEP and TEAMS programs or by permission of the Teacher Education Department.

Cr. 1-3.

## SED 540 Nature and Needs of Learners Who Are Exceptional

This course focuses on the unique characteristics and educational and social/emotional needs of children and youth who display a range of learning disabilities, mild forms of developmental delay, and mild to moderate forms of behavioral and adjustment problems. Cr 3.

## SED 543 Seminar for Fostering Equity in Educating Diverse Learners

This second year course synthesizes knowledge of students, knowledge of teaching, and knowledge of culture in examining the role of access to equitable education in a democratic society. Candidates will both analyze issues and practices and reflect on the impact of a commitment to equitable education on their own teaching. Prerequisite: open to matriculated interns in ETEP and TEAMS, or by Teacher Education Department (TED) permission. Cr. 3

## Department of Human Resource Development

Chair: E. Michael Brady, 400 Bailey Hall, Gorham
Professors: Atkinson, Brady, Mace, Murphy, Steege, VanZandt; Associate Professors: Brown-Chidsey, Katsekas, Stevens; Assistant Professors: BaruchRunyon, Schnieders; Lecturer: Day; Clinical Lecturer: Jones; Assistant Research Professor: Kelley; Field Placement Coordinator: Tully

The Department of Human Resource Development offers a number of graduate programs to help human services professionals improve their practices and to enhance the practices of schools and organizations through education, research, and public service. Please see the graduate catalog for information on these programs.

At the undergraduate level, the Department offers courses in human growth and development. Also offered are courses which may serve as electives for academic programs outside the College or as preparation for students wishing to become peer leaders. The Department also offers a number of courses at the 500 -level which are appropriate for some undergraduate (with approval of instructor) and graduate students.

## HCE 500 Orientation to the Counseling Profession

This introductory course is designed to acquaint individuals who are preparing to enter the counseling profession with a broad overview of the profession's historical and theoretical foundations and to begin the development of a professional identity. This course must be taken the first semester following matriculation in a graduate program. Cr 3.

## HCE 507 Spirituality and Religion in Counseling

This course will address, in an ecumenical and inclusive format, the growing renaissance in the psychotherapeutic community and in the larger American society of the integration of spirituality and religious values. Various aspects of spirituality and religion will be explored as they relate to the counseling process. The course will seek to increase the awareness of counselors to potential areas of client concern, including spiritual journeys, early religious training, search for meaning, personal relationship with the Divine, and death and bereavement. Participants will explore various religious and spiritual practices, including, but not limited to, Islam, Buddhism, Native American, Hinduism, Christianity, and Judaism.

Cr 3.

## HRD 110 Choices, Changes, and Careers

The focus of this course is on self and career exploration and the critical role of personal decision making in identifying and pursuing fields of interest. Students will learn to understand their own deci-sion-making process and the factors that influence this process. Course activities will include assessments of self, assessments of interest, and explorations of the world of work. Throughout the course, students will be introduced to available resources and support systems and be engaged in activities that will help them become involved in the University community. Prerequisite: fewer than 45 earned credit hours.

Cr 3 .

## HRD 200J Human Growth and Development

This course introduces developmental theory and research which encompasses the entire life span. Emphasis will be on prenatal development through adolescence, with an overview of adult development. A multi-disciplinary view of human development will be taken which considers stability as well as change throughout the life cycle. The interaction of hereditary and environmental factors will be considered in studying physical, cognitive, and psychosocial development. Prerequisite: secondsemester freshman or above.

## HRD 337 Peer Leadership Seminar

This course is intended for students who participate in organized student leadership programs or are interested in learning more about leadership within higher education organizations. The course examines the nature of higher education organizations, leadership theory, college student development the-
ory, as well as both interpersonal and group communication skills. Through written and oral projects students learn how to integrate theory with practice. Assignments and projects draw their focus from the individual's particular interests regarding student leadership.

Cr 2.

## HRD 339 Adult Learning and Development

This course explores various areas of adulthood, including topics in adult learning theory and adult development. Topics covered include: how adults learn and the motivation to learn, life cycle theories and maturity myths, learning styles and experiential learning. Learning is facilitated through a framework of small group interaction. Participants are encouraged to share ideas and experiences of adulthood and to determine how relevant themes apply to their own lives.

Cr 3.

## HRD 545 Gender and Learning

Students explore the multiple and complex relationships of gender and learning from diverse theoretical perspectives, including topics such as feminist theories and pedagogies, historical perspectives on gender and education, and identity development. Gender is analyzed from infancy through adulthood in connection with other aspects of identity that impact learning, including race, class, sexual orientation, disability, and ethnicity.

Cr 3.

## HRD 555 Introduction to Student Affairs in Higher Education

This course provides students with an overview of student affairs in colleges and universities. Particular attention will be given to historical developments as rooted in the emergence of the unique model of higher education in the U.S., to models of student development, to evaluation of the various models of student affairs organizations, and to emerging issues in managing student affairs programs. The intent is to provide students with the information and skills necessary to understand and evaluate the field as well as to assess their own interest and commitment to careers in student affairs.

Cr 3.

## HRD 556 Summer Institute in Student Affairs

This institute is designed to provide students with a week-long immersion experience in a topic selected because of its significance to student affairs in higher education. Topics addressed are those that have been identified as timely by student affairs professional organizations and/or highlighted in recent student affairs literature. The topics for the institute and the faculty to teach it changes each summer. Recent institutes have covered assessment in student affairs, legal issues in student affairs, and academic advising. The institute is required for students concentrating in student affairs as part of their adult education master's program.

Cr 3.

## HRD 557 Gerontology for Educators

This course is an introduction to the field of educational gerontology. Key issues to be treated include
demographic trends, theories of aging, problems and opportunities in later-life learning, productive retirement, and educational opportunities for elders. A major goal of the course is to invite professional educators to explore human aging with an eye toward improving teaching and/or program development with elder populations. Cr 3.

## HRD 558 Aging and Life Review

This course examines the process of life review and its role in human aging. The phenomena of memory, imagination and identity in later age will be
examined. Participants will develop practical methods of facilitating life review of themselves and older clients.

Cr 3 .
HRD 559 Aging, Death, and Bereavement This course examines the phenomenon of death in modern society with a special emphasis on implications of older persons. Issues such as the meaning of death, the dying process, survivorship, and suicide are treated. Special attention is paid to the role of the professional in death education.

Cr 3.

## Upward Bound at USM

Executive Director: Laurie J. Davis
Project Coordinators: Christopher Turner and Alyssa West
Academic Counselors: Gail Minichiello and Cam Theriault
Upward Bound at USM is funded through the U.S. Department of Education's TRIO program. It is a sponsored program of the College of Education and Human Development. Upward Bound at USM assists students who are low-income and/or first-generation-to-college succeed in high school and to prepare for postsecondary education.

Upward Bound at USM serves 106 students enrolled at six southern Maine high schools including Biddeford, Bonny Eagle, Massabesic, Portland, Sacopee Valley, and Sanford .

During the academic year, Upward Bound staff members provide academic and college counseling to students enrolled at participating schools; coordinate college campus visits; and assist students and their families with college and financial aid applications. During the summer, USM hosts a six-week summer residential program at USM. The summer program includes academic coursework; career and college exploration; community service and service learning; recreation; and cultural activities.

For information, go to www.usm.maine.edu/upwardbound, or visit the Upward Bound office in McLellan House, Gorham, or call (207) 780-5203.

# School of Business 

Dean: James B. Shaffer, 113 Luther Bonney<br>Associate Dean for Academic Affairs: James Suleiman; Associate Dean for Innovation and Entrepreneurship: Valarie C. Lamont; Assistant Dean for Student Affairs: Alice Cash; Coordinator of Student Affairs/Academic Counselor: James O'Brien; Coordinator of Career Services and Internships: Melissa Burns

Chair (Accounting and Finance): Joel Gold, 213 Luther Bonney
Chair (Marketing and General Management): Richard Grover, 221 Luther Bonney Professors: Andrews, Artz, Gold, Gramlich, Houlihan, Manny, Violette, Voyer; Associate Professors: Aiello, Bennett, Chinn, Grover, Jensen, Munger, Pryor, Purdy, Sanders, Shields, Smoluk, Suleiman, VanderLinden, Westfall, Williams; Assistant Professors: Chene, Heiser, Kerr, Kohli

## Mission Statement

We prepare and inspire current and future leaders, and stimulate economic growth, by providing quality learning opportunities, valuable research, and professional service, all in partnership with the business community.

## Accreditation

## Programs

## Course Enrollment <br> Policies

The School of Business is accredited by AACSB International-The Association to Advance Collegiate Schools of Business. AACSB International assures quality and promotes excellence and continuous improvement in undergraduate and graduate education for business administration and accounting.

The School of Business offers a bachelor of science degree in business administration with majors in 1) accounting, 2) finance, 3) marketing, 4) general management, and 5) sport management. General management has the following tracks: a) entrepreneurship and small business management, b) international business, c) risk management and insurance, d) sustainable business, and e) generalist track (advanced study across multiple fields of business. Note: required courses in the entrepreneurship track may not be offered during the evening (5:30 p.m. or later). School of Business majors may obtain a double major within the school, and nonaccounting majors may pursue a minor in accounting. Students may also enroll in the 3-2 program to obtain both undergraduate and graduate degrees in five to six years.

The undergraduate program is designed to develop the student's abilities to assume the responsibilities of general and financial management, and to cope successfully with the changing problems of managers in the years ahead. Entering students begin by acquiring broad training in the arts and sciences as a foundation for the study of business. All students also complete the business core, which is a series of courses covering major functional areas common to business operations. Lastly, students acquire a deeper knowledge of their selected major.

For students pursuing other majors, the School offers minors in 1) accounting, 2) business administration, and 3) information management, as well as the 3-2 program mentioned above.

The School of Business offers certificate programs of undergraduate study in accounting and risk management and insurance.

The graduate degree provided by the School is the master of business administration with a choice of optional concentrations. (see graduate catalog for information).

Students who are not majoring within the School may enroll in 300-level or higher courses provided there is space available in the courses and they have a cumulative GPA of 2.0 or higher. Non-majors will be enrolled according to the following priorities:

1. They have declared a major that requires the course.
2. They have been admitted to a School of Business minor.
3. They are admitted to the University as degree candidates.
4. They have approval from the associate dean for Academic Affairs.

Any School of Business major or minor who has enrolled in an ACC, FIN, BUS, or RMI course more than twice must, before continuing in that course, complete and
have approved by the Department chair, a course condition form (available from the School of Business office). Failure to do so may result in course credit disqualification.

## Internship Program

The master of business administration (MBA) allows interested and qualified students to complete a bachelor's degree and an MBA in five to six years depending on the undergraduate major. (Degree requirements for some majors necessitate a longer completion time.)

Generally, students in the 3-2 program focus on their bachelor's degree requirements during their first three years, a mix of bachelor's and foundation requirements in the fourth year, and MBA requirements in the fifth and sixth years. Each degree is awarded once the specific degree requirements are successfully met.

## Admission Requirements

Students may enroll in the 3-2 program directly, or any time after the end of their first semester of undergraduate studies. Students entering directly need an SAT combined score of 1200 or higher. Students currently enrolled in a baccalaureate degree program may enter the 3-2 program by meeting the regular MBA admission criteria of a formula score of 1100 or higher with a minimum GMAT score of 500 . (The formula is: undergraduate grade point average x 200, plus the GMAT total score.) Students in the 3-2 program will be required to attain a grade point average of 3.0 or higher after 90 credit hours of undergraduate coursework to remain in good standing and be allowed to continue in the program.

## Enrollment in MBA-level courses

Students may not enroll in MBA-level courses until after they have accumulated 90 credit hours of undergraduate coursework. Please refer to the USM graduate catalog for MBA foundation, core, and elective courses. Undergraduate accounting or business administration majors admitted to the 3-2 program may be able to accelerate their programs by enrolling in MBA foundation courses that can fulfill certain undergraduate requirements. Students should see their academic advisor for details.

School of Business majors are encouraged to participate in an internship to experience on-the-job learning. Employment in a professional setting provides opportunities to apply classroom learning, develop work-related skills, and explore careers. Credit may be received for paid or non-paid positions with new employers, or for new responsibilities with current employers. Credit is not granted for past work experience. Students obtain internship positions by contacting the School of Business internship coordinator or by contacting employers to develop positions. Students are also welcome to discuss internship availability with faculty members and chairs. An intern must work a minimum of 140 hours on-site and be advised by a faculty sponsor during the internship. Under the supervision of a faculty sponsor, the student must prepare a written learning contract that contains a job description, the student's learning goals, self-directed learning activities, and an evaluation process. Grading is pass/fail. Refer to the course descriptions for ACC 395-396, BUS 391-396, FIN 395396, and RMI 395-396 for prerequisites and restrictions. For further information, contact the School of Business Internship Office at 780-4020.

## Bachelor of Science in Business Administration

## Requirements for All Majors

In addition to meeting all University requirements, students must earn a grade point average of 2.33 or higher in USM courses applied toward the degree. To ensure that students graduate with a current understanding of their field, upper-level courses taken more than 10 years before the degree is awarded must have Departmental approval for use in the business core or the major.

Students can declare or change a major by completing a form available at the School office. Students declaring a major in general management must select a track at the same time. Double majors are possible as long as the courses applied toward one major are not applied toward the second major. Under no circumstances can credits be double-counted for two program options (e.g., major, minor, track or concentration) within the School of Business. Before enrolling in their first School of Business course (ACC, BUS, FIN or RMI designations) requiring junior standing, students majoring in a School of Business major must have junior standing ( 54 credits completed) and have a minimum grade point average of 2.33 in USM courses. This minimum GPA requirement supersedes any course-specific GPA requirement lower than 2.33.

| Overview of course requirements |  |
| :--- | ---: |
| Core Curriculum (USM requirement) | 25 credits |
| Non-Business Core (School requirement) | 17 credits |
| Business Core (School requirement) | 36 credits |
| Major Requirements | 15 credits (22 for accounting) |
| General Electives | 27 credits (20 for accounting) |
|  | TOTAL: 120 credits |

## Optional first-year seminar

Credits counted as general electives; strongly recommended for recent high school graduates with fewer than 24 credits: BUS 101 Getting Down to Business (3 credits)

## USM Core Curriculum Requirements (25 credits)

Basic Competence

1. English Composition
a. Basic Composition-C (3 credits)
b. Writing-intensive-W (credits counted elsewhere)
2. Skills of Analysis/Philosophy-E (3 credits)
3. Quantitative Decision Making-D: met by taking MAT 210D (credits counted in the non-business core).

Methods of Inquiry/Ways of Knowing

1. Fine Arts (courses must be from different departments.)
a. Performance-centered arts-F: met by taking THE 170F (credits counted in the non-business core).
b. History-centered arts-G (3 credits)
2. Humanities
a. Literature-H (3 credits)
b. Other Times/Other Cultures - I (3 credits)
3. Social Science-J ( 6 credits from different departments, excludes ECO 101 and 102)
4. Natural Science-K (4 credits)

## Non-business Core Requirements (17 credits)

Spreadsheet proficiency: demonstrated by passing ABU 190 Spreadsheets and Problem Solving with a grade of C or higher, or by successfully passing a School of Business spreadsheet proficiency exam. Proficiency must be demonstrated to graduate.

| ECO | 101 J | Introduction to Macroeconomics | (3 credits) |
| :--- | :--- | :--- | :--- |
| ECO | 102 J | Introduction to Microeconomics | (3 credits) |
| MAT | 108 | College Algebra with C- or higher grade | ( 4 credits) |

Substitutes include a C- or higher grade in MAT 140D or approved higher level math course, passing a CLEP exam, or passing the MAT 108 equivalency exam offered by Academic Assessment.
MAT 210D Business Statistics with C-or higher grade (4 credits) or Cor higher grade in prior credit for MAT 120D or other approved statistics course (www.usm.maine.edu/sb/stats.html).
THE 170F Public Speaking (3 credits) or other course by permission.

## Business Core Requirements (36 credits)

A minimum of $50 \%$ of business core courses must be taken at USM, and the student's grade point average for the business core must be 2.33 or higher.

| ACC | 110 | Financial Accounting Information for Decision Making |
| :--- | :--- | :--- |
| ACC | 211 | Managerial Accounting Information for Decision Making |
| BUS | 260 | Marketing |
| BUS | 275 | Applied Business Analysis |
| BUS | 280 | Legal Environment of Business |
| BUS | 340 | Managing Organizational Behavior |
| BUS | 345 | Information Technology/Management Information Systems |
| BUS | 370 | Management Science |
| BUS | 375 | Production/Operations Management |
| BUS | 450 | Business Policy and Strategy |
| FIN | 320 | Basic Financial Management |
| Select one of the following international courses: |  |  |
| BUS | 335 | International Business |
| BUS | 361 | International Marketing |
| BUS | 382 | International Business Law |
| FIN | 330 | International Financial Management |

## Major Requirements (15 or more credits)

At least $50 \%$ of credit hours applied to the major must be taken at USM. No more than 3 credits of internship can count toward the major. See descriptions below for specific requirements of each major.

General Electives ( 23 credits for accounting majors, 27 credits for other majors)

## Major in Accounting

The accounting major ( 22 credits) prepares students for a variety of careers. Students acquire a solid grasp of accounting concepts and practices along with a comprehensive understanding of business. The program fosters the development of critical thinking and professional skills crucial for career success. Students interested in pursuing a career in public accounting will be prepared to undertake the additional coursework needed to meet the 150 -hour requirement. Students interested in preparing to take the CPA exam are encouraged to take Auditing and Assurance (ACC 410) and Governmental and Nonprofit Accounting (ACC 416). Students interested in pursuing a career in industry should take Cost Management Systems (ACC 405). Students are encouraged to enroll in an internship during their junior or senior year. Students are also encouraged to be active in student organizations such as the School's Accounting and Finance Society.

Accounting Major Requirements ( 22 credits)

| ACC | 221 | The Financial Accounting Cycle (one credit) |  |  |
| :--- | :--- | :--- | :---: | :---: |
| ACC | 301 | Financial Reporting I |  |  |
| ACC | 302 | Financial Reporting II |  |  |
| ACC | 329 | Accounting Information Systems |  |  |
| ACC | 413 | Concepts and Strategies of Taxation |  |  |
| elect one of the |  |  |  | following: |
| ACC | 405 | Cost Management Systems or |  |  |
| ACC | 416 | Governmental and Nonprofit Accounting |  |  |
| Select one of the following: |  |  |  |  |
| ACC | 410 | Auditing and Assurance or |  |  |
| ACC | 441 | Advanced Accounting |  |  |

Accounting Electives ( 3 credits; select one):
\(\left.$$
\begin{array}{lll}\text { ACC } & 395 & \begin{array}{l}\text { Internship I in Accounting } \\
\text { ACC }\end{array} 405\end{array}
$$ $$
\begin{array}{l}\text { Cost Management Systems (if not taken to satisfy one of the } \\
\text { requirements above) } \\
\text { ACC }\end{array}
$$ 410 \quad \begin{array}{l}Auditing and Assurance (if not taken to satisfy one of <br>

the requirements above)\end{array}\right\}\) ACC $416 \quad$| Governmental and Nonprofit Accounting (if not taken to |
| :--- |
| satisfy one of the requirements above) |

Students are encouraged to take the following one-credit elective early in their coursework (credit counted as general elective):

ACC 105 Introduction to the Accounting and Finance Professions
Students must earn a grade point average of 2.33 or higher (with a minimum grade of C - in each course) in the 22 credits applied toward the major.

## Major in Finance

The finance major ( 15 credits) prepares students for careers in corporate finance, investments, financial services, banking, and related fields. Students learn a blend of theoretical and practical concepts and apply this knowledge to real world settings. The program develops analytical and critical thinking skills that will aid students throughout their careers. The flexibility of the major requirements allows students to create self-designed specializations within the major. For example, students interested in pursuing a career in financial services might select FIN 321, FIN 328 or RMI 320, and an internship at a financial services company.

Finance Major Requirements
FIN 327 Investment Management
FIN 330 International Financial Management (cannot be counted in core)
Finance Electives ( 9 credits; at least two courses must be FIN courses)
FIN 321 Personal Financial Planning
FIN 326 Financial Modeling
FIN 328 Financial Institutions and Markets
FIN 395 Internship I in Finance
FIN 490 Independent Study in Finance
FIN 499 Special Topics in Finance
ACC 413 Concepts and Strategies of Taxation
ACC 302 Financial Reporting II
ECO $310 \quad$ Money and Banking
BUS 342 Leadership
BUS 385 Entrepreneurship and Venture Creation
BUS 485 Managing the Growing Entrepreneurial Venture
RMI 220 Introduction to Risk Management and Insurance
Students are encouraged to take the following one-credit elective early in their coursework (credit counted as general elective):

ACC 105/
FIN 105 Introduction to the Accounting and Finance Professions
Students must earn a grade point average of 2.5 or higher in the 15 credits applied toward the major.

## Major in Marketing

The marketing major ( 15 credits) prepares business administration students for a wide range of marketing and management careers ranging from client services to new product development and brand management. Separate courses are offered in career areas such as retailing, advertising, sales, and sport marketing. Students
acquire a solid grasp of marketing concepts and practices along with a comprehensive understanding of business. Most important, the program fosters the development of professional skills crucial for career success. Students are encouraged to further develop skills by taking the applied courses listed below and being active in student organizations such as the School's Student Marketing Association (SMA).

| Marketing Major | Requirements: |  |
| :--- | :--- | :--- |
| BUS | 359 | Customer Relationship Management |
| BUS | 365 | Consumer Behavior (or BUS 165J plus upper-level |
|  |  | marketing elective) |
| BUS | 369 | Marketing Research |
| Select an applied | marketing course: |  |
| BUS | 358 | E-commerce |
| BUS | 362 | Market Opportunity Analysis |
| BUS | 367 | Marketing Management |
| BUS | 392 | Internship in marketing |
| BUS | 398 | Marketing Practicum |
| Select a 3-credit, | 300-level or higher marketing elective |  |

Students must earn a grade point average of 2.33 or higher in the 15 credits applied toward the major.

## Major in Sport Management

The sport management major ( 27 credits) prepares students for careers in the dynamic, global, and multi-million dollar sport industry. Sport business professionals must understand the complexities of this competitive industry and develop strategies for personal and organizational success. The sport management major is designed to meet the needs of these managers in a range of sport industry settings and recognizes the essential business foundations required to be successful in the field. Academic and practical experiences are combined to prepare students to gain successful employment in a range of sport industry settings. The sport management coursework provides students with the skills to be successful in a variety of areas including professional and amateur sports organizations, event management, sport marketing agencies, sport facility management, sporting goods manufacturing, and collegiate athletics.

| Sport Management Requirements |  |  |  |
| :--- | :--- | :--- | :---: |
| BUS | 210 | Introduction to Sport Management |  |
| BUS | 311 | Sport Marketing |  |
| BUS | 312 | Sport Law |  |
| BUS | 315 | Sport Finance |  |
| BUS | 415 | Sport Management Seminar |  |
| BUS | 393 | Internship/Advanced Field Experience in Sport |  |
| Management (6 credits) |  |  |  |
| Sport Management Electives (6 credits) |  |  |  |
| BUS | 313 | Sport Facility Management |  |
| BUS | 314 | Sport Communication |  |
| BUS | 316 | Sport Event Management |  |
| BUS | 317 | Sport Sponsorship and Sales |  |
| BUS | 318 | Athletic Administration |  |

Students must earn a grade point average of 2.33 or higher in the 27 credits applied toward the major.

## Major in General Management (with choice of tracks)

Students in the general management major ( 15 credits) select one of the tracks below, which either provide broad exposure to management issues or provide a specific industry focus. Each track specifies 9 of the 15 credits in the major, leaving 6 credits for business electives. Students must earn a grade point average of 2.33 or higher in the 15 credits applied toward the major.

## Entrepreneurship and Small Business Track

## International Business Track

## Risk Management and Insurance Track

## Sustainable Business Track

Students in this track graduate with a concentration in entrepreneurship and small business management listed on their transcript. Required courses in this track may not be available at night.

Requirements

| BUS | 362 | Market Opportunity Analysis |
| :--- | :--- | :--- |
| BUS | 385 | Entrepreneurship and Venture Creation |
| BUS | 485 | Managing the Growing Entrepreneurial Venture |

Select 6 credits of 300 -level or higher ACC, BUS, FIN or RMI courses.
Students in this track graduate with a concentration in international business listed on their transcript. Students are encouraged to develop their foreign language skills, to travel abroad, and to obtain a minor in international studies.

Requirements (in addition to the international requirement in the business core) BUS 335 International Business
Select 6 credits from

| BUS | 361 | International Marketing |
| :--- | :--- | :--- |
| BUS | 382 | International Business Law |
| BUS | 394 | Internship in International Business |
| ECO | 370 | International Economics |
| FIN | 330 | International Financial Management |

Approved international experience ( 3 credits; see below)
Select 6 credits of 300 -level or higher ACC, BUS, FIN or RMI courses.
An approved international experience is educational activity by a student while outside of the U.S. that contributes to the student's understanding of the international business and which has been approved by the student's advisor. Activities which normally will be approved include, without limitation:

- A course relevant to international business, taken at an educational institution outside the U.S. and qualifying for 3 or more credits when transferred to USM.
- BUS 490 Independent Study involving a student's activities outside the U.S. (3 cr. min.)
- A USM course relevant to international business, involving study outside the U.S. and which has 3 or more credits.
- Courses relevant to international business shall include, without limitation, courses in economics, political science, law, history, geography, culture, and courses which develop skills in languages other than English.

The risk management and insurance track prepares students for careers in the insurance industry (including insurance carriers and underwriters, insurance agencies or brokerages, insurance service fields) and its allied fields, such as banking, financial planning, accounting, real estate, stockbrokerage and third party administration. Students learn a blend of theoretical and practical concepts and apply this knowledge to risk management and insurance. The program develops analytical and critical thinking skills that will aid students throughout their careers.

Requirements:
RMI 220 Introduction to Risk Management and Insurance
RMI 330 Health, Life, and Disability Insurance
RMI 350 Managing Risk with Property and Liability Insurance
Select 6 credits of 300-level or higher ACC, BUS, ECO (310 only), FIN or RMI courses, including

RMI 395 Internship in Insurance
Students completing this track will be better prepared to identify green market opportunities and to manage organizations for the triple bottom lines of environmental, social, and financial performance. A concentration in sustainable business will be listed on their transcript. Students are encouraged to obtain a minor in sustainability. Required courses in this track may not be available at night.

Requirements
BUS 357 Triple Bottom Line Marketing
Select 6 credits from

| BUS | 391 | Internship in Sustainable Business |
| :--- | :--- | :--- |
| ECO | 326 | Environmental Economics [ECO 102] |
| ECO | 327 | Natural Resource Economics [ECO 102] |

Project courses (BUS 362/385/396/398/490 or ESP 450, or advisor approved course)
Select 6 credits of 300-level or higher ACC, BUS, FIN or RMI courses.

## General Management Track

## Requirements

Students in this track select 3 credits from each of three different disciplinary areas:

Marketing (BUS 311, 357-369, 398)
Management (BUS 342, 346, 385, 485)
Law (BUS 312, BUS 380, BUS 382)
Finance (BUS 315, FIN 321-330)
Accounting (ACC 301-329)
Risk Management and Insurance (RMI 320-350)
Select 6 credits of 300 -level or higher ACC, BUS, FIN or RMI courses.

## School of Business Minors

The minor in accounting is designed to permit undergraduate majors from outside the School of Business, as well as non-accounting business administration majors within the School, an opportunity to develop a more in-depth knowledge and skill in accounting.

Students wishing to pursue the minor must obtain a copy of the Authorization for Accounting Minor form from the School of Business, complete and return it to the School of Business advisor, signed by the student's current advisor for his or her major. Completion of at least 12 credits at USM with an overall GPA of 2.33 is required at the time of application. Accounting minors need a 2.33 cumulative grade point average in the five courses taken in the minor. A student may transfer to the minor up to six credit hours of comparable accounting courses.

Minor in Accounting

Minor in Business<br>Administration

The minor in accounting is 15 credit hours, including six credit hours required in: ACC $110 \quad$ Financial Accounting Information for Decision Making ACC 211 Managerial Accounting Information for Decision Making
And nine credit hours from the following:
ACC 301 Financial Reporting I*
ACC 302 Financial Reporting II
ACC 315 Internal Auditing
ACC $318 \quad$ Principles of Fraud Examination
ACC 329 Accounting Information Systems
ACC 395 Internship I in Accounting
ACC 405 Cost Management Systems
ACC 413 Concepts and Strategies of Taxation
ACC 416 Governmental and Nonprofit Accounting
ACC 499 Special Topics in Accounting
*Students who enroll in ACC 301 are required to complete the prerequisite, ACC 221, The Financial Accounting Cycle. ACC 221 is a one credit hour self-study course and is in addition to the 15 credits for the minor.

A self-designed minor in business administration (21 credit hours) is available to students in majors outside the School. Students who wish to pursue the minor must complete a declaration form available at the School of Business. The requirements for admission to the minor are completion of at least 12 credits at USM and a grade point average of 2.33 or higher. A student may transfer into the minor up to nine credit hours of acceptable courses. To complete the minor, the student must have a grade point average of at least 2.33 in minor courses. Courses eligible for the minor include: ACC 110, ACC 211, BUS 101, BUS 165J, BUS 200, BUS 210, BUS 260, BUS 280, FIN 190, or 300-level or higher BUS, FIN or RMI courses.

The minor in information management (18 credits) is available to students in majors outside the School, although required courses may not be available at night. The minor develops student skills in information analysis, information retrieval, and
informed decision making. Students who wish to pursue the minor must complete a declaration form available at the School of Business. Admission into the minor requires completion of at least 12 credits at USM, a GPA of 2.33 or higher, and spreadsheet proficiency. A student may transfer into the minor up to nine credits of comparable courses. To complete the minor, the student must have a grade point average of at least 2.33 in minor courses:

| BUS | 260 | Marketing <br> BUS |
| :--- | :--- | :--- |
| 275 | Applied Business Analysis (see course listing for prereqs; <br> substitutes available for ASET students) |  |
| BUS | 280 | Legal Environment of Business <br> BUS |
| 345 | Information Technology/Management Information Systems |  |
| BUS | 358 | Electronic Commerce <br> BUS |
| 359 | Customer Relationship Management: A Data-based <br> Approach |  |

Note: only 12 credits can be applied to both the information management (IM) minor and the business administration (BA) minor; IM students who want a BA minor must take 9 additional credits of eligible business courses at USM.

## Certificate Programs in Undergraduate Study

Certificate of Study in Accounting

This certificate program is designed to prepare individuals, who already possess an undergraduate degree in another field of study, for a career or graduate study in accounting. The certificate program consists of 16 credit hours in accounting. The certificate is open to individuals who possess: 1 ) an undergraduate degree with a minimum cumulative GPA of 2.33 , or 2 ) a master's level (or above) degree.

Career changers who already have completed an undergraduate course of study will have earned, at the completion of the certificate program, 136 or more hours of the 150 -hour requirement to sit for the CPA exam. Individuals wishing to sit for the CPA exam should also take BUS 280 Legal Environment of Business. Those who need additional credits to meet the 150 -hour requirement, and who do not wish to enter a graduate degree program, can take additional accounting electives and/or other business or undergraduate courses of interest to meet the credit-hour requirement to sit for the CPA exam. Matriculated USM students are not eligible to obtain this certificate.

There is a $\$ 50$ fee to apply for the certificate program. Candidates should apply by submitting: a completed application form; evidence that they meet the minimum education requirement; and the application fee to: Accounting Certificate Coordinator; School of Business; University of Southern Maine; P.O. Box 9300; Portland, ME 04104-9300.

The following foundation courses (six credits) are prerequisites to one or more of the courses included in the accounting certificate.

| ACC | 110 | Financial Accounting Information for <br> Decision Making <br> Managerial Accounting Information for <br> Decision Making | 211 |
| :--- | :--- | :--- | :--- |

The certificate program consists of the following six courses ( 16 credits). Courses must be taken in the order required by the prerequisite structure in effect.

| ACC | 221 | The Financial Accounting Cycle* | 1 cr |
| :--- | :--- | :--- | :--- |
| ACC | 301 | Financial Reporting I | 3 cr |
| ACC | 302 | Financial Reporting II | 3 cr |
| ACC | 329 | Accounting Information Systems | 3 cr |
| ACC | 410 | Auditing and Assurance | 3 cr |
| ACC | 413 | Concepts and Strategies of Taxation | 3 cr |
| *ACC 221 may be waived by passing an equivalency exam. |  |  |  |

Enrollment in specific courses is based on eligibility criteria and availability of space in the courses. Enrollment in some courses may be restricted or prohibited in any given semester due to high demand from degree students. Admission into the certificate program does not guarantee admission into any other USM program or enrollment in any specific course. Students must complete the required 16 credit hours within four years after the application date and must earn a minimum 2.33

## Risk Management and Insurance Certificate of Undergraduate Study

cumulative GPA (with a minimum grade of C- in each course) to obtain the certificate. Students may be able to apply earned certificate course credit toward an undergraduate business degree at USM with an accounting major if the minimum GPA requirements are met.

Students who have completed required coursework elsewhere, prior to admission to the certificate program, may petition to substitute up to three credits (one course) of another 400 -level ACC course for one of the required courses (a grade of C or better in the course taken elsewhere is required). Non-matriculated students enrolled in this certificate program will not be eligible for financial aid.

The certificate program in risk management and insurance (RMI) is a way for individuals already working in risk management, insurance, and financial services to develop a deeper understanding of the business in which they work without the larger and protracted experience of seeking a complete (or in some cases second) undergraduate degree. One of the three RMI courses (RMI 350) has been approved for automatic credit toward two separate professional designations offered by a national provider of risk management and insurance professional education.

Applications to the program are available online or from the School of Business office and carry a $\$ 50$ application fee. Applicants to this program must mail completed hard copy applications and application fee payable to: School of Business, RMI Certificate Program, University of Southern Maine, P.O. Box 9300, Portland, ME 04104-9300

Admission to this certificate program will be limited to those with either: 1) a minimum cumulative 2.33 GPA in at least 54 previous semester hours of college credit, or 2) a minimum of three years of risk management, insurance, or other financial services work experience. Applicants relying on the latter admission requirement will need to provide evidence of at least a high school diploma, or its equivalent.

The RMI certificate program is a 15 -hour program consisting of three required core courses and two elective courses. There is no particular order in which either core or elective courses must be taken as long as individual course prerequisites are satisfied.

| Required Core Courses ( 9 credit hours): |  |  |  |
| :---: | :---: | :--- | :--- | :--- |
| RMI | 220 | Introduction to Risk Management and Insurance | 3 cr |
| RMI | 330 | Health, Life, and Disability Insurance | 3 cr |
| RMI | 350 | Managing Risk with Property and Liability Insurance | 3 cr |

Elective Courses ( 6 credit hours) - choose any two courses:

| ACC | 110 | Financial Accounting Information for Decision Making 3 cr |
| :--- | :--- | :--- |
| BUS | 190 | Personal Finance |

BUS 200 Introduction to Business 3 cr
BUS 260 Marketing 3 cr
BUS 280 Legal Environment of Business 3 cr
BUS 340 Managing Organizational Behavior 3 cr
Enrollment in specific courses is based on eligibility criteria and availability of space in the courses. Enrollment in some highly demanded courses may be restricted or prohibited in any given semester. Admission into the certificate program does not guarantee admission into any other USM program or enrollment in any specific course.

Students must complete the required 15 credit hours within four years after the application date and must earn a minimum 2.33 cumulative GPA to obtain the certificate. Students may be able to apply earned certificate course credit towards an undergraduate business degree at USM as long as they earn a minimum 2.33 GPA in the certificate program courses.

Related courses previously taken in associate or baccalaureate degree programs at regionally accredited colleges and universities in which a minimum grade of $\mathrm{C}+$ was earned may be applied towards the non-RMI elective courses of the proposed certificate program. Transfer credit will not be permitted for the RMI core courses. Non-matriculated students enrolled in this certificate program are not eligible for financial aid.

Certain accounting courses are offered only once a year. Students should inquire about these when developing their academic program.

## ACC 105 Introduction to the Accounting and Finance Profession

This course provides an introduction to the accounting and finance profession. The course will explore career opportunities available and examine the skills necessary for success in accounting and finance. Certifications such as the CPA, CMA, and CFA will be discussed, and the advantages of membership and participation in professional organizations will be explored. Undergraduate and graduate educational options will also be discussed. Dialogue will occur with various members of the professional accounting and finance community representing a range of experience levels and a diversity of accounting careers. Pass/fail.

## ACC 110 Financial Accounting Information for Decision Making

This course is designed to help students appreciate the role of accountants in providing information helpful to decisions of investors, creditors, government regulators, and others, and how that information can be used. Emphasis is on understanding the meaning and value of the balance sheet, income statement, and statement of cash flows. The role of the auditor, internal controls, and ethical issues are examined. The annual report is used to explore how corporations apply accounting principles in presentations to the public. Prerequisites: minimum of 12 earned credit hours and evidence of successfully meeting the University's writing and mathematics proficiency requirements.

Cr 3 .

## ACC 211 Managerial Accounting Information for Decision Making

This course will provide students with the opportunity to learn basic concepts and accounting systems involved in the use of managerial accounting information in making planning and control decisions in organizations. Basic concepts include different types of costs (e.g., direct, indirect, fixed, variable, and relevant costs). Basic accounting systems include systems for cost allocation (e.g., job-order costing, activity based costing), planning (e.g., cost-volume-profit analysis, master budget), and control (e.g., flexible budgets, variance analysis, responsibility accounting, performance measurement). Prerequisites: ACC 110 and sophomore standing.

Cr 3 .

## ACC 221 The Financial Accounting Cycle

This course serves as a "bridge" between the introductory level (user-focused) financial accounting course and Financial Reporting I, which is required for the accounting major. The course reviews the accounting cycle: the journal entries for typical business transactions including adjusting and closing entries, and the preparation of accounting statements including preparation of a complete accounting cycle exercise. The course must be completed
prior to enrollment in ACC 301/501. Prerequisite: ACC 110 or MBA 502.

Cr 1.

## ACC 301 Financial Reporting I

An examination of the conceptual framework, the primary financial statements, and the methods and rationale for recording and reporting assets. Emphasis is on the effect of present and potential economic events on the financial statements. The course discusses the advantages, limitations and deficiencies associated with generally accepted principles in connection with presenting decision useful information. Prerequisites: ACC 110, ACC 211, ACC 221 (with a grade of C or higher), and junior standing.

Cr 3 .

## ACC 302 Financial Reporting II

An examination of the methods and rationale for recording liabilities and equity. The course also examines the statement of cash flows. Emphasis is on the effect of present and potential economic events on the primary financial statements. The course discusses the advantages, limitations, and deficiencies associated with generally accepted principles in connection with presenting decision-useful information. Prerequisites: ACC 301 and junior standing. Cr 3.

## ACC 315 Internal Auditing

This course focuses on the study of the nature of internal auditing, professional standards, organizational controls, operational auditing, and internal audit reporting. Students will explore the philosophy behind, and the methods needed to evaluate adherence to company policies and the strength of internal controls. The partnership relationship with the external auditor will also be evaluated. Prerequisite: ACC 211 and junior standing. Cr 3.

## ACC 329 Accounting Information Systems

This course explores the theory and tools needed to select, use, set up internal controls for, and obtain information from accounting systems. The basic debits and credits of double-entry accounting are reviewed using a manual practice set that includes preparing typical business documents. The business activities performed in the expenditure, production, and revenue cycles are covered together with the documents, internal controls, and reporting needs relevant to each cycle. Significant emphasis is placed on the effects of error on financial reports, the controls needed to prevent and detect errors in accounting systems, and the correction of system errors. The use of small business accounting software is introduced. Students use accounting software to set up accounts, process transactions, and produce managerial and standard financial accounting reports. Prerequisites: ACC 211, ACC 301, and junior standing.

Cr 3

## ACC 395 Internship I

The first internship course in accounting is described in the general School of Business catalog text. Prerequisites: junior standing, 2.5 GPA or high-
er, and permission of a School of Business advisor and instructor. Enrollment is normally limited to accounting and finance majors or minors who have not completed degree requirements. Pass/fail. Cr 3.

## ACC 396 Internship II

This is the second internship course in accounting. Prerequisites: 2.5 GPA or higher, and permission of a School of Business advisor and instructor. May petition Department to take concurrently with ACC 395. Enrollment is normally limited to accounting and finance majors who have not completed degree requirements. Credits from this course count as general electives only. Pass/fail.

Cr 3.

## ACC 405 Cost Management Systems

This course is designed to explore how cost management systems can be used to support competitive strategy in global markets. This is accomplished by providing an understanding of the underlying and fundamental concepts in cost accounting. Group activities and writing are an integral part of this course. Prerequisites: ACC 211 and junior standing.

Cr 3.

## ACC 410 Auditing and Assurance

This course examines the public accounting profession, auditing standards, and professional ethics. The course explores the process by which an auditor forms an opinion as to the "fairness of presentation" of financial statements, giving an overview of audit evidence and audit evidence accumulation methodology. The course exposes students both to the demand for and supply of the profession's flagship service, financial statement audits, and to the nature of the value-added assurance and attestation services decision makers demand in the information age. The course illustrates with real companies, links class discussion and assignments to student skills, and encourages unstructured problem solving. This course provides an opportunity for students to study auditing concepts and theory at an advanced level by examining a number of issues, with extensive reading from the auditing research literature, in addition to the textbook material. Prerequisites: ACC 302, ACC 329, and senior standing. Cr 3.

## ACC 413 Concepts and Strategies of Taxation

This course provides a conceptual understanding of the federal tax system, and its impact on individuals, corporations, and partnerships. The primary emphasis is on fundamental income tax concepts and principles, with an overview of other taxes. Detailed technical coverage and return preparation are minimized. The economic, political, social, and judicial reasoning underlying tax provisions are explored. Tax issues and changes under current consideration at the national, state, local and international levels are discussed. Basic research skills and methodology are introduced. Prerequisites: ACC 110 and junior standing. Cr 3.

## ACC 416 Governmental and Nonprofit

 AccountingAn analysis of the environment and characteristics
of government and nonprofit organizations, with an in-depth study of the basic concepts and standards of financial reporting for such entities. Financial management and accountability considerations specific to government and nonprofit organizations are emphasized. Prerequisites: ACC 301 and junior standing.

## Cr 3.

## ACC 418 Principles of Fraud Examination

This course examines the subject of fraud from both management and accounting perspectives. Utilizing a variety of techniques including text, lecture, case studies, guest speakers, and occasional videos, the course seeks to familiarize students with the conditions that facilitate fraud, the profile of the fraud perpetrator, common types of fraud, and methods of prevention, detection, and resolution. Numerous historical cases of fraud are examined. Students are brought to appreciate the prevalence of fraud in current society as well as the almost innumerable ways in which it can be committed. Students entering the business world are provided a perspective for understanding. Prerequisites: ACC 110 and junior standing. Cr 3.

## ACC 441 Advanced Accounting

This course explores a variety of advanced topics such as the theoretical and practical concepts of business combinations, partnerships, foreign currency, and other current issues. Prerequisites: ACC 302 and junior standing.

Cr 3.

## ACC 490 Independent Study in Accounting

Selected topics in the various areas of accounting, auditing, and income taxes may be studied and researched on an independent basis. Enrollment is normally limited to accounting and finance degree candidates. Prerequisites: permission of instructor and program chair and senior standing. $\mathrm{Cr} 1-3$.

## ACC 499 Special Topics in Accounting

Prerequisites vary by topic.
Cr 1-3.

## BUS 101 Getting Down to Business

This course is an integrated, comprehensive overview of the way a business operates and what it takes to manage one. It introduces students to the basic, interdisciplinary knowledge used to run a business - such as finance, marketing, and manage-ment-by giving students an extended opportunity to manage a business in a simulated business environment. Students also get experience with, and enhance their ability to work in, self-managed teams. The course is strongly recommended as a first business course for all first-year students who are, or are considering, a major or minor in the School of Business. The course is designed, in part, to acclimate the recent high school graduate to USM. It is open to all University students, except those with more than 23 credits or credit for an introductory business course such as BUS $200 . \quad$ Cr 3.

## BUS 165J Consumer Studies

This course, which may have a sizable online com-
ponent, explores the dynamics of consumption. Emphasis is placed on cultural, sociological, and psychological forces affecting consumers. Other topics: consumer decision making, materialism in society, marketing, and consumer research. Prerequisites: English 100C or 101C or concurrent. Students with credit for BUS 365 may not enroll. When taken by School of Business majors, this course gives general elective or Core credit. Cr 3.

## BUS 190 Personal Finance

Primary emphasis is to teach students how to become more knowledgeable and independent over money matters. Topics such as obtaining financial aid, managing student loans, career and education planning, budgeting, credit cards, stock market investing, real estate and insurance will be covered. Upon completing the course, students will be on their way to making better money decisions. This course is open to all USM students. When taken by business or accounting majors, this course will give general elective credit.

Cr 3.

## BUS 200 Introduction to Business

This course is designed to introduce the student to the contemporary business environment and the variety of typical activities engaged in by business professionals. It explores how different business functions are integrated to accomplish the goals of the business within an increasingly competitive business environment. It is designed for anyone interested in becoming knowledgeable about successful business practices. Students with credit for BUS 101 or other introductory business course may not enroll. This course is intended for non-majors, and is restricted to students with fewer than nine credits in business, finance, and accounting. Business and accounting majors may not enroll without the approval of their academic advisor. Prerequisites: Fewer than nine credits in BUS, FIN and ACC. Must not be in a School of Business major. Must not have credit for BUS 101. Cr 3.

## BUS 210 Introduction to Sport Management

This course provides an overview of the business of sports, including career opportunities. The value of professional management to sports organizations is examined.

Cr 3.

## BUS 260 Marketing

This course is an introduction to the field of marketing. Topics include marketing strategy for products and services, market segmentation, product issues, pricing, promotion, distribution, consumer behavior, marketing research and information systems, international marketing, and nonprofit marketing. Prerequisite: minimum of 24 earned credit hours.

Cr 3 .

## BUS 275 Applied Business Analysis

This course provides students with an understanding of statistical concepts and tools that are critical in business decision making. The discussion and development of each topic are presented in an appli-
cation setting, with the statistical results providing insights and solutions to real world problems. The coursework requires extensive use of commercially available statistical software. Prerequisite: MAT 108 (C- or higher grade) and MAT 210D (C- or higher grade) or other approved statistics course (see www.usm.maine.edu/sb/stats.html for approved courses).

Cr 3.

## BUS 280 Legal Environment of Business

This course introduces students to the legal system, tort law, product liability, consumer law, labor law, equal employment law, intellectual property law, and other topics. It stresses the social responsibility of business and the legal and ethical framework in which businesses must function.

Cr 3.

## BUS 303W Career Planning and Development

Students in this course identify and develop career goals and plans while improving their writing skills. Students engage in activities relating to personal and professional interest profiling, interest and employment inventories, interview preparation, resume construction, job searches, and business writing. Prerequisites: junior standing and ENG 100/101C or equivalent course.

Cr 2.

## BUS 311 Sport Marketing

Basic marketing concepts are applied to sport organizations, both amateur and professional. Topics include promotions and public relations, sport consumer behavior, strategic marketing planning, marketing information management, marketing communications, and sponsorship. Prerequisites: BUS 260 and junior standing.

Cr 3 .

## BUS 312 Sport Law

This course examines the legal system, its terminology, and principles in the context of professional and amateur sports. Emphasis is on identifying and analyzing legal issues, the ramifications of those issues, and the means of limiting the liability of sport organizations. Prerequisites: BUS 280 and junior standing.

Cr 3.

## BUS 313 Sport Facility Management

An investigation of the functions of sport managers in the design, operation, and financing of facilities and venues. Students will examine the issues pertaining to management of public and private arenas, stadiums, theatres, galleries, festivals, racetracks, and multipurpose facilities. Management of temporary facilities for special events will also be considered. Prerequisite: BUS 311 or BUS 315. Cr 3.

## BUS 314 Sport Communication

This course is designed to introduce the student to the role of effective communication in the sport, art, and entertainment industry settings. The nature and function of communication will be examined in a variety of settings. Emphasis will be placed on interpersonal communications, public relations, mass media relations, public speaking, and innovative technology. Prerequisite: BUS 311.

Cr. 3

## BUS 315 Sport Finance

Basic theory in finance and accounting is applied to managerial control of sport organizations. Topics include forms of ownership, taxation, financial analysis, feasibility studies, and economic impact studies. Prerequisites: FIN 320, and junior standing. Cr 3.

## BUS 316 Sport Event Management

This course is designed to provide practical involvement in managing a sport event. Students will be assigned to committees for which they will plan, organize, publicize and manage all aspects of event operations during the semester. A required component of the course will include a commitment to work with the actual event. Prerequisite: BUS 311. Cr 3.

## BUS 317 Sport Sponsorship and Sales

Overview of all elements of sport sponsorships, including rationale, benefits, proposal development. Sales management strategies will focus specifically on the unique aspects of sport sponsorship environment. Students will create marketing surveys, develop sponsorship proposals, identify and contact potential sponsors, conduct negotiation and sales, learn activation techniques, and evaluate sponsor packages. Prerequisite: BUS 311 or BUS 315. Cr 3 .

## BUS 318 Athletics Administration

This course is designed to introduce the student to the management issues faced by administrators within collegiate and high school athletics departments. Students will develop an understanding of issues such as governance, financial considerations, NCAA and conference compliance, gender equity and Title IX, conference membership issues and realignment, legislation, and reform. Prerequisite: BUS 311 or BUS 315.

Cr 3.

## BUS 335 International Business

Introduction to the global economy and the political and cultural environments of international business. Topics include financial, marketing, and human resource issues in international business. Prerequisites: ECO 101J, ECO 102J, and junior standing.

Cr 3 .

## BUS 340 Managing Organizational Behavior

A survey of the disciplines of management and organizational behavior, and of the practices managers employ in planning, organizing, leading, and controlling organizations. Topics include selfawareness, perception and decision making, individual differences and diversity, motivation, group dynamics, communication, stress, power and politics, organizational design, and change. The environmental context, workforce diversity, the global economy, and managerial ethics are core integrating themes. Prerequisite: junior standing.

Cr 3 .

## BUS 342 Leadership

The purpose of this course is to help students be more effective exercising leadership. To do this, the course will first teach the distinction among leadership, authority, and management, and also among
different leadership situations. The course will then provide experiential exercises and exposure to tools and techniques appropriate to the various challenges. Prerequisites: BUS 340 and junior standing. Cr 3 .

## BUS 345 Information Technology/Management Information Systems

Surveys information/systems technology for the management of corporate information as a resource. Managerial and technical dimensions of information systems are blended in a framework of information technology. Specific topics will evolve with the field but may include data communications, information systems theory, database concepts, and decision support systems. Prerequisites: ABU 190 (C or higher grade or test-out option, and sophomore standing.

Cr 3.

## BUS 346 Human Resource Management

Analysis of professional practice issues in personnel and human resource management. Students will form in-class enterprises to explore topics including: human resource planning, recruitment, staffing, performance appraisal, compensation and reward system design, training and development, employee rights and safety, labor-management relations, and legal and international dimensions of human resource management. Prerequisite: junior standing. Cr 3.

## BUS 357 Triple Bottom-Line Marketing

How can marketers manage for the triple bottom line of financial, environmental, and social performance? This asynchronous, online course begins with an exploration of sustainable business (i.e., the pursuit of profits without causing pollution or social inequity). The course ends by examining green consumer behavior and the interrelationship between environmental issues and marketing strategy. Prerequisites: junior standing and BUS 260 or instructor's permission.

Cr 3 .

## BUS 358 E-Commerce

This course examines various business models used in electronic commerce, provides an understanding of how an e-presence is established, and explores the strategic use of e-commerce in a global environment. Students will develop skills in establishing a Web presence for a business and business planning. Prerequisites: BUS 260, BUS 345, and junior standing.

Cr 3.

## BUS 359 Customer Relationship Management

Customer relationship management (CRM) involves the strategic use of people, technology, and processes to select, acquire, and retain customers to maximum profit. This course emphasizes the link among CRM, database marketing, and customer value and also develops students' skills in database design, selection, and data analysis. Prerequisites: BUS 260, BUS 275 (or MAT 212), BUS 345, and junior standing.

Cr 3.

## BUS 361 International Marketing

This course addresses the critical marketing skills
required for business survival in today's world economy. It deals with international environments, international marketing management, and links international marketing with a company's overall strategic planning activities. Practical case work or a computer simulation will be used to apply international marketing concepts. Prerequisites: BUS 260 and junior standing.

Cr 3 .

## BUS 362 Market Opportunity Analysis

In this course, student teams evaluate case studies and work with a local business to analyze formally a market opportunity. Areas of analysis include target market identification, industry trends, demand analysis, capacity and fit issues, competitive analysis, and forecasting. Prerequisites: BUS 260 and junior standing. Students are encouraged to take BUS 365 and BUS 369 before BUS 362. Cr 3.

## BUS 363 Advertising

Students will explore the evolution of advertising; forms and medium used and their relationship to the product, the climate, the target market, all within the framework of the marketing concept. Prerequisites: BUS 260 and junior standing.

Cr 3 .

## BUS 364 Professional Selling

This course is designed to equip students with the fundamental understanding of the role of professional selling within all types of organizations with an emphasis on development of communication, relationship building, and presentation skills. The course is interactive/"hands on" and will include: video case studies; role playing; sales presentations; guest lectures; use of PowerPoint; use of sales management software; group presentations; mini lectures; and Internet research. Prerequisites: BUS 260 and junior standing.

Cr 3 .

## BUS 365 Consumer Behavior

This course, which may have a sizable online component, examines alternative explanations of consumer behavior. Emphasis is placed on cultural, sociological, and psychological influences on consumption. Other topics include consumer decision processes and the way managers use consumer characteristics to segment the market and develop marketing plans. Prerequisites: BUS 260 and junior standing. Students with credit for BUS 165J may not enroll.

Cr 3.

## BUS 366 Retail Management

Students examine the use of merchandise and service to satisfy the needs of targeted consumers in a competitive retail environment. Topics include marketing strategy, merchandising, location, store management, non-store retailing, pricing and financial analysis, organizational structure and human resources, and information systems. Prerequisites: ACC 110, BUS 260 or instructor permission, and junior standing.

Cr 3 .

## BUS 367 Marketing Management

Students gain experience making marketing deci-
sions as members of teams. The emphasis is on applying a management perspective to marketing decision making. Students must integrate knowledge from other functional disciplines into a strategic marketing planning framework. Prerequisites: BUS 260, any 300-level marketing course, and junior standing.

Cr 3 .

## BUS 369 Marketing Research

Students learn the benefits of marketing research as a management planning and evaluative tool. Topics include problem formulation, research design, sampling, data collection and analysis, and managerial interpretation of the findings. Major emphasis is on quantitative aspects of the marketing research process. Students gain knowledge of the marketing research process through completion of a marketing research project and lab work with statistical software. Prerequisites: ABU 190 (C or higher grade) or test-out option, BUS 275 (or concurrent) or MAT 212, BUS 260, and junior standing. Cr 3.

## BUS 370 Management Science

This course examines the role, perspective, and commonly used tools of quantitative analysis in business decision making. Emphasis is placed upon developing students' abilities to recognize the need for quantification; formulate business problems quantitatively; select and test computer-based, deci-sion-support system models; collect meaningful data; and interpret the implications of analysis results. Prerequisites: ABU 190 (C or higher grade, or test-out option), BUS 275 or MAT 212, 2.0 GPA and junior standing. Students with credit for BUS 270 or BUS 371 may not enroll. Cr 3.

## BUS 375 Production/Operations Management

An examination of the role of operations within manufacturing and service organizations. Emphasis is placed upon recognizing operational opportunities and tradeoffs, and employing quantitative and qualitative tools and decision-support systems to assist strategic and operational decision making. Topics include: process design, quality management, capacity planning, supply chain management, and production planning. Prerequisites: ABU 190 (C or higher grade) or test-out option, BUS 275 or MAT 212, BUS 370 (or concurrent), 2.0 GPA and junior standing.

Cr 3.

## BUS 380 Advanced Legal Issues in Business

This course will cover negotiable instruments, contract law, trusts and estates, property law, and other legal topics. This course is intended to provide detailed study of many important legal issues facing businesses. Prerequisite: BUS 280, junior standing, or permission of the instructor.

Cr 3.

## BUS 382 International Business Law

An examination of legal issues affecting international business transactions. Topics include contracts, sale of goods, letters of credit, regulation of imports and exports, business competition law, pro-
tection of intellectual property rights, and ethical issues. Prerequisites: BUS 280 or equivalent, and junior standing.

Cr 3.

## BUS 385 Entrepreneurship and Venture Creation

This course is about starting a business and about the benefits and costs, both personal and professional , of an entrepreneurial career. Students learn how to establish start-up teams, identify opportunities, and obtain resources. The course involves written self-appraisals, case analyses, team work, and presentations of comprehensive business plans. Prerequisites: ACC 110, ACC 211 or permission, BUS 362 (or permission), and junior standing.Cr 3.

BUS 391 Internship in Sustainable Business
See BUS 395 description for requirements. Cr 3.
BUS 392 Internship in Marketing
See BUS 395 description for requirements. Cr 3.

## BUS 393 Internship in Sport Management/Advance Field Experience

The internship requirement is considered to be one of the most critical components of the Sport Management Program. Students will undertake a 12-15 week, full-time ( 40 hours per week) supervised internship. This opportunity is expected to enhance the student's academic experiences via a required industry analysis paper, a research project, weekly logs and a portfolio, as well as provide additional work experience and networking opportunities. Internship experiences may take place in any of the varied sport industry settings. Students may obtain internships in any region of the country and in some cases may receive financial compensation. Prerequisite: junior standing, BUS 311, 2.33 GPA or higher and permission of a School of Business advisor and instructor. Enrollment is normally limited to sport management majors who have not completed degree requirements. Pass/fail.

Cr 6.

## BUS 394 Internship in International Business

See BUS 395 description for requirements. Cr 3.

## BUS 395 Internship I

This is the first internship course in business administration. Prerequisites: junior standing, 2.33 GPA or higher, and permission of a School of Business advisor and instructor. Enrollment is limited to baccalaureate School of Business majors who have not completed degree requirements. A maximum of six internship credits may be used toward the degree.

Cr 3.

## BUS 396 Internship II

This is the second internship course in business administration. Prerequisites: BUS 395, 2.33 GPA or higher, and permission of a School of Business advisor and instructor. Enrollment is limited to baccalaureate School of Business majors who have not completed degree requirements. A maximum of six internship credits may be used toward the degree. Credits from this course count as general electives only.

## BUS 398 Marketing Practicum

Working in self-directed teams, students carry out a marketing project to meet the goals of a partner in the business community. As part of the course, students are to generate publicity for the school and formally present the results of the project to their external partners. The course emphasizes problembased learning and the development of professional skills. If more than 3 credits are earned, the extra credits count as general electives. Students are encouraged to take BUS 365 and BUS 369 before this course. Prerequisites: BUS 260, any 300-level marketing course, GPA of 2.5 or higher, junior standing, or instructor permission.

Cr 3.

## BUS 399 Special Topics in Business

Prerequisites vary.
Cr 1-3.

## BUS 415 Sport Management Seminar

This capstone sport management course is designed to integrate the academic work studied throughout the curriculum. Critique of governance issues and policy development in a range of sport organizations will be considered. Students will participate in decision making and strategic planning cases. Emphasis will focus on the strategic, profit-oriented, and ethical decision making that is necessary for upper level sport managers to be successful. Students will conduct in-depth analysis of a specific area of the field. Prerequisite: BUS 311, BUS 312, BUS 315.

Cr 3.

## BUS 450 Business Policy and Strategy

An in-depth examination of the strategic management process in large complex organizations. Case study analysis and discussion are used to provide students with opportunities to learn and to apply strategic management theories and concepts. These include competitive analysis, value-chain analysis, generic business strategies, corporate strategy, and global strategy. Prerequisites: BUS 260, BUS 340, FIN 320, GPA 2.33 or higher, and senior standing. Cr 3.

## BUS 485 Managing the Growing Entrepreneurial Venture

An interdisciplinary course emphasizing the application of entrepreneurial management concepts and strategies to the growth-oriented small business beyond the start-up stage to eventual maturity and harvest. Topics include venture opportunity analysis, stages of small business growth, making the transition from entrepreneur to entrepreneurial manager, formulating and implementing growth strategies, building an effective organization, marshaling organizational and financial resources for growth, managing under adversity, and managing rapid growth. Prerequisites: BUS 340, BUS 260, FIN 320 , and senior standing.

Cr 3.

## BUS 490 Independent Study

Selected topics in business administration may be studied and researched on an independent basis. Enrollment is normally limited to business adminis-
tration degree candidates. Prerequisites: junior standing and permission of instructor and Department chair.

Cr 1-6.

## FIN 105 Introduction to the Accounting and Finance Profession <br> See ACC 105 for requirements. Pass/fail.

Cr 1 .

## FIN 320 Basic Financial Management

This course is a balanced introduction to the theory and practice of financial management. It prepares students to make basic financial decisions and understand the decisions of others. Topics include time value of money, capital markets, risk and return, stock and bond valuation, capital budgeting, capital structure, and working capital management. Prerequisites: ACC 211 (or concurrent), ECO 101J, ECO 102J (or concurrent), BUS 275 or MAT 212 (or concurrent), and junior standing.

Cr 3.

## FIN 321 Personal Financial Planning

This course begins to prepare students for a career as a professional financial planner by providing fundamental concepts and principles of personal financial planning, applied with a quantifiable approach to achieving client objectives. Topics include general principles of financial planning, the changing nature of the financial services environment, code of ethics and professional responsibility, credit and debt management, budgeting, personal taxes, employee benefit planning, goal attainment, investment planning, risk management through the purchase of insurance, retirement planning, and estate planning. The course will include casework and current financial planning problem scenarios. Prerequisites: FIN 320 and junior standing. Cr 3.

## FIN 326 Financial Modeling

Introduces principles and techniques for building and implementing financial models. Topics are drawn from a variety of areas: financial planning, investments, derivatives, and corporate finance. The course emphasizes the application of financial modeling techniques in identifying and implementing business solutions. The course will be of special interest to students seeking hands-on experience constructing financial models. Prerequisites: FIN 320 and junior standing.

Cr 3.

## FIN 327 Investment Management

Introduction to the securities markets, investment media, and strategies for managing individual and institutional investment portfolios. Special attention is directed to the risk and rate-of-return aspects of corporate stocks and bonds, government bonds, options, futures, and mutual funds. Prerequisites: FIN 320 and junior standing.

Cr 3.

## FIN 328 Financial Institutions and Markets

A comprehensive survey of the structure of the financial markets and the role of bank and nonbank financial institutions in the financial system. Topics address the financial markets as allocators of funds
and distributors of risks, asset choices of financial institutions, and contemporary issues facing financial institution managers. Prerequisites: FIN 320 and junior standing.

Cr 3 .

## FIN 330 International Financial Management

This course focuses upon financial management of the multinational corporation with assets domiciled abroad. The financial dimensions of multinationals require extensive knowledge of how to manage foreign exchange-denominated assets and liabilities and how to borrow money and issue stock in foreign countries. Thus, a basic overview of foreign exchange theory, balance of payments adjustment mechanisms, and international trade theory is provided. Other topics include: international import and export financing, international working capital management, multinational capital budgeting, and international cost of capital. Prerequisites: FIN 320 and junior standing.

Cr 3.

## FIN 395 Internship I

The first internship course in finance is described in the general School of Business catalog text. Prerequisites: junior standing, 2.5 GPA or higher, and permission of a School of Business advisor and instructor. Enrollment is normally limited to finance majors who have not completed degree requirements. Pass/fail.

Cr 3.

## FIN 396 Internship II

This is the second internship course in finance. Prerequisites: 2.5 GPA or higher, and permission of a School of Business advisor and instructor. May petition Department to take concurrently with FIN 395. Enrollment is normally limited to accounting and finance majors who have not completed degree requirements. Pass/fail.

Cr 3.

## FIN 490 Independent Study in Finance

Selected topics in the various areas of finance may be studied and researched on an independent basis. Enrollment is normally limited to accounting and finance degree candidates. Prerequisites: permission of instructor and program chair and senior standing.

Cr 1-3.

## FIN 499 Special Topics in Finance

Prerequisites vary by topic.
Cr 1-3.

## RMI 220 Introduction to Risk Management and Insurance

This course introduces students to the nature of risk, risk identification, general risk management techniques, and the management of risk through insurance. It covers why the individual or corporation purchases insurance, what constitutes an intelligent insurance plan, and what products are available in the insurance marketplace. This course is designed for non-majors and is a prerequisite for more advanced risk management and insurance courses. Prerequisites: successful completion of the University's Core requirement in quantitative decision making (D).

Cr 3.

RMI 330 Health, Life, and Disability Insurance This course covers health, life, and disability insurances from the perspective of insurance providers, employers, and consumers. Individual and group health insurance product management and the relationship between product characteristics and insurance company investments, financing, and marketing decisions are discussed. Managed care techniques, benefit package design, and cost sharing mechanisms are assessed in the context of resolving incentive conflicts and meeting cost-containment objectives. The basic principles underlying life insurance are covered as well as the various types and policy provisions for life insurance. Short-term and long-term disability insurance, definitions of disability, and various policy provisions for individual and employer provided group disability insurance are discussed. Evaluation of insurance company financial strength and the impact of regulation on company management and behavior are considered. Prerequisite: RMI 220.

Cr 3.

## RMI 350 Managing Risk with Property and Liability Insurance

This course examines the many commercial property and liability exposures faced by businesses. An emphasis is placed on using commercial property and liability insurance as a method of reducing, man-
aging, and transferring business risk. Topics include commercial general liability, business automobile, workers' compensation, commercial property, business income, and business owner's insurance. The legal environment of property and liability insurance and risk financing are considered. The fundamental structure and business of property casualty insurance are discussed. Prerequisite: RMI $220 . \quad \mathrm{Cr} 3$.

## RMI 395 Internship I

The first internship course in risk management and insurance is described in the general School of Business catalog text. Prerequisites: junior standing, 2.33 GPA or higher, and permission of a School of Business advisor and instructor. Enrollment is normally limited to general management majors in the risk management and insurance track who have not completed degree requirements. Pass/fail. Cr 3.

## RMI 396 Internship II

This is the second internship course in risk management and insurance. Prerequisites: 2.33 GPA or higher, and permission of a School of Business advisor and instructor. May petition Department to take concurrently with RMI 395. Enrollment is normally limited to general management majors in the risk management and insurance track who have not completed degree requirements. Pass/fail. Cr 3.

# School of Applied Science, Engineering, and Technology 

Dean: John R. Wright, 106 John Mitchell Center, Gorham

Associate Dean: Andrew L. Anderson, 108 John Mitchell Center, Gorham
Administrative Manager: Lori Arsenault; Director, Student Services: Bonnie L. Stearns

The School of Applied Science, Engineering, and Technology (ASET) is organized into five academic departments: Applied Medical Sciences, Computer Science, Engineering, Environmental Science, and Technology. Through these departments, the School offers bachelor's degrees, including the B.A. in environmental planning and policy, and the B.S. in computer science, electrical engineering, mechanical engineering, industrial technology, applied technical leadership, environmental science, and environmental safety and health. In addition to the engineering degrees, the first year or two of other engineering disciplines are available as part of a transfer program.

The School offers two master of science degrees: the M.S. in applied medical sciences (with concentrations in toxicology and cancer biology, immunology and infectious disease, epidemiology, and biotechnology) and the M.S. in computer science. The M.S. program in applied medical sciences emphasizes biomedical research and provides opportunities to work on research projects and to interact with adjunct faculty at Maine Medical Center, the Foundation for Blood Research, and the Maine Center for Disease Control and Prevention. The M.S. degree in computer science with an option in computer engineering is offered in collaboration between the Departments of Computer Science and Engineering. Further information regarding the School's graduate programs may be found on the Office of Graduate Studies Web site.

The School's degree programs prepare students for productive and rewarding lives and provide knowledge and skills for many careers. Students, faculty, and alumni apply theory and use scientific and mathematical principles and techniques to solve practical problems. The School's academic programs are designed and delivered so that all students who are prepared and motivated can successfully complete them. Graduates have (1) technical competence with both depth and breadth, (2) a wide range of knowledge enabling them to function effectively in the professional world, (3) transferable skills such as reasoning, problem solving, verbal and written communications, teamwork, and leadership, and (4) motivation to continue to learn and grow professionally. Graduates achieve extremely good employment and graduate school placement.

## Student Services

ASET is dedicated to supporting students in defining, developing, and achieving personal, academic, and career goals. Services and programs that are provided to meet the needs of ASET students include: academic advising, career counseling, mentoring, referrals, tutoring/tutorials, and career and academic skills workshops. Assistance in locating and securing cooperative education and internships are provided as well as information on various scholarships available to ASET students. For more information, contact the director of student services at (207) 780-5050.

## Cooperative Education and Internships

ASET encourages students to participate in cooperative education and internship experiences. Both options integrate classroom learning with meaningful and rewarding work experience in a field related to a student's academic or career goals. Internships are sponsored by individual departments and require an academic advisor; variable credits are awarded. Co-op assignments are paid positions that are typically full time for a semester or six months. For more information, contact the coordinator of cooperative education at (207) 780-5918.

## External Programs

External Programs provides credit, noncredit, and certificate programs to students who are unable to attend classes or programs on campus. Customized programs, including workshops, seminars, and short courses are available on specialized topics as requested by educational, corporate, or industrial organizations to meet their specific objectives. For further information, call (207) 228-8162.

## Manufacturing Applications Center (MAC)

The Manufacturing Applications Center (MAC) works with Maine's industries to improve quality and efficiency in production operations. Interactive strategies and assistance are provided on a fee-for-services basis to help companies become more competitive via advanced technologies and world-class manufacturing strategies.

Assistance is provided in: technical training, quality assurance, product testing and analysis, reverse engineering, rapid prototyping, production control, project management, CAD/CAM/CIM technologies, lean manufacturing, metrology, plant layout, process analysis and control, push/pull strategies, supply chain management, JTT flow, 5's, and engineering design. For further information, call (207) 228-8162.

## General Information

Admission to an undergraduate program in the School of Applied Science, Engineering, and Technology is initiated through the Office of Undergraduate Admission. Candidates for admission must be graduates of an approved secondary school and meet admission requirements indicated in the Admission section of this catalog and the individual departments of the School.

General academic policies will be found in the Academic Policies section of this catalog. Specific policies and requirements are indicated in the sections dealing with the individual departments of the School. All students are reminded that, in addition to meeting departmental requirements for a major, they must also meet the requirements of the University Core curriculum.

## Department of Applied Medical Sciences

Chair of the Department: W. Douglas Thompson, 106 Science Building, Portland Professors: Ng, Thompson, Wise; Associate Professors: Duboise, Pelsue; Research Assistant Professors: Meyer, Lichter, Paulu, Xie; Adjunct Professors: Ault, Rhodes, Rice; Adjunct Associate Professors: Allan, Chandler, Craig, Davidoff, Fletcher, Follansbee, Friesel, Liaw, Lindner, Smith, Vary; Adjunct Assistant Professor: Beckett

In addition to its graduate program (with concentrations in toxicology and cancer biology, immunology and infectious disease, epidemiology, and biotechnology) the Department of Applied Medical Sciences offers an undergraduate minor in toxicology and environmental health.

## Minor in Toxicology and Environmental Health

The undergraduate minor in toxicology and environmental health provides students with a comprehensive overview of the scientific disciplines that are most relevant to understanding the effects of environmental hazards on human health. The effects of pollutants on various organ systems in humans and in marine mammals are emphasized.

Students can minor in toxicology and environmental health by completing 18 credits of curriculum involved in the minor with a grade of $\mathrm{C}(2.0)$ or higher. Interested students should contact the AMS office for additional information.

All students will be required to take the following core courses ( 11 credits):

| AMS | 490 | Introduction to Toxicology I | $(3$ credits) |
| :--- | :--- | :--- | :--- |
| AMS | 491 | Introduction to Toxicology II | (3 credits) |
| AMS | 435 | Introduction to Epidemiologic Research | (3 credits) |
| AMS | 495 | Seminar in Biomedical Sciences | (2 credits) |

Select 7 credits from below:

| AMS | 493 | Introduction to Research Techniques in <br> Toxicology and Environmental Health | (4 Credits) |
| :--- | :--- | :--- | :--- |
| BIO | 321 | Neurobiology | (3 Credits) |
| CHY | 461 | Biochemistry | (3 Credits) |
| ESP | 375 | Environmental Risk Assessment and Management |  |
| PSY | 365 | Physiological Psychology | (3 Credits) |
| PSY | 366 | Drugs, Mind, and Behavior | (3 Credits) |

## AMS 435 Introduction to Epidemiologic <br> Research

This course is intended to give students a basic foundation in principles for the conduct and interpretation of population-based studies of the distribution, etiology, and control of disease. Topics will include randomized experiments, non-randomized cohort studies, case-control studies, cross-sectional and ecological studies, causal inference, sources of bias, and measures of effect. Recent publications from the epidemiologic and general medical literature will be used to illustrate the application of the concepts to specific epidemiologic issues. Cr 3.

## AMS 450 Principles of Immunology

An introduction to the fundamentals of immunology, especially as they relate to human diseases. Topics include history of immunology, basic elements of immune systems, principles of natural and acquired immunity, cellular and molecular basis of $B$ cell and $T$ cell development and diversity, and clinical aspects of immunology. Prerequisites: CHY 105 or CHY 115, junior standing, and grade of C- or higher in either BIO 109 or BIO 211; or permission of instructor.

Cr 3.

## AMS 490 Introduction to Toxicology I

This course introduces students to the principles and practice of toxicology. The major focus of the course is on basic principles, mechanisms, and common methods underpinning the science of toxicology. Selected target organ systems (e.g., respiratory, nervous, and immune systems) are studied with respect to understanding how representative chemicals damage and impair their ability to function. Students will develop a fundamental understanding of how chemicals may exert toxic effects and gain insight into the importance of organ specific effects. Prerequisite: admission to the minor, cell biology, or molecular biology, or biochemistry, or permission of the instructor.

Cr 3.

## AMS 491 Introduction to Toxicology II

The course continues to focus on basic principles, mechanisms, and common methods underpinning the science of toxicology. Selected toxicants are studied with respect to their source of exposure and mechanisms of effect. Selected disease processes (e.g. mutagenesis, carcinogenesis, and teratogenesis) are studied with respect to understanding their basic pathways and common mechanisms. Selected fields are presented to give students insight into the applications of toxicology and its relationship with other fields. Prerequisite: AMS 490, or permission of the instructor.

## AMS 493 Introduction to Research Techniques in Toxicology and Environmental Health

The student learns a laboratory approach and techniques to study toxicology and environmental health. The term is spent under the direction of a faculty member engaged in a research project. This is a
hands-on course with close supervision by technically trained personnel. For those sections in laboratories working with biohazards, laboratory safety and use of biosafety hoods are emphasized. Prerequisite: permission of instructor.

Cr 4 .

## AMS 495 Advanced Seminar in Biomedical Sciences

The student participates in a weekly seminar on biomedical sciences. The seminar focuses on current topics in biomedical research. Prerequisite: permission of instructor. Seminar is offered in both fall and spring semesters.

Cr 1.

## BIO 321 Neurobiology

This course presents an overview of nervous system function, structure, and development. Content focuses on the cellular and molecular properties that underlie normal function. Prerequisite: grade of C or higher in BIO 109 or BIO 111, or permission of instructor.

Cr 3 .

## CHY 461 Biochemistry

Application of chemical methods and principles to understanding biological processes. Topics include structure and action of nucleotides, proteins, lipids, and carbohydrates; enzyme kinetics and mechanisms; membranes and transport; and metabolism and energy conversion. This one-semester course provides a survey of the major areas of biochemistry, except for nucleic acids. Prerequisite: a grade of C- or better in CHY 253.

Cr 3.

## ESP 375 Environmental Risk Assessment and Management

The focus of this course is to provide students with an understanding of human health risk assessment as an organized, multidisciplinary approach to evaluating scientific data by studying basic toxicology and fate and transport of contaminants using generally accepted principles and terminology used in the field. Students will examine the limitations of current risk assessment methods and be introduced to the basics of ecological risk assessment. Finally, students will study the scientific, political, social, ethical, and economic dimensions of managing risks. Prerequisite: ESP 101/102K or permission of instructor.

Cr 3

## PSY 365 Physiological Psychology

Basic neuroanatomy, neurophysiology, and endocrinology, and the relationships between nervous system functioning and behavior. Physiological analysis of sensory function, motivation, and learning. Prerequisites: PSY 101J, 102, and BIO 111. Cr 3.

## PSY 366 Drugs, Mind, and Behavior

The physiological and behavioral effects of drugs are examined in light of current research. Also considered are theories relating to the use/abuse of drugs, tolerance, addiction, and drug interactions. Prerequisites: PSY 101J and one semester of biology.

Cr 3.

# Department of Computer Science 

Chair of the Department: Robert Boothe<br>Professors: Alagic, Welty; Associate Professors: Boothe, Briggs, MacLeod; Assistant Professor: Congdon; Adjunct Faculty: Bantz, El-Taha, Heath, Houser

The Department of Computer Science offers a four-year program leading to a B.S. in computer science. Computer science courses concern the theory and practice of solving problems by computer. More specifically, computer scientists build and analyze tools that allow complex problems to be solved. A component of computer science is the study and use of various programming languages, but computer science consists of much more than programming. The mathematical theory of computer science aids in determining the efficiency and correctness of algorithms and programs. In addition, a computer scientist must understand how computers are built and operate. The systematic application of general methods and computing technology to actual problems is also part of computer science.

The undergraduate degree in computer science prepares students both for careers in the computing profession and for graduate study. Course requirements ensure that students receive instruction in both practical and theoretical aspects of computer science. The B.S. degree in computer science is accredited by the Computing Accreditation Commission (CAC) of ABET, the national board that accredits computer, engineering, and technology programs (see www.abet.org).

At the time of graduation, USM computer science students will be prepared for careers and/or graduate school. In three to five years, graduates of the USM computer science program will

1. have successful professional careers
2. be valued, ethical members of their profession and society
3. be actively involved in continuing their professional education

## Programs and Requirements

## Bachelor of Science in Computer Science

All students are reminded that, in addition to meeting departmental requirements for a major, they must also meet the University Core curriculum requirements.

The total number of credits for graduation is 120 .
Courses used to fulfill major requirements in sections A through F below must be passed with a grade of C - or better. The accumulative grade point average of all courses applied to the major must be at least 2.0.

The specific course requirements are as follows.
A. Computer Science:

| COS | 160 | Structured Problem Solving: Java |
| :--- | :--- | :--- |
| COS | 161 | Algorithms in Programming |
| COS | 170 | Structured Programming Laboratory |
| COS | 250 | Computer Organization |
| COS | 255 | Computer Organization Laboratory |
| COS | 285 | Data Structures |
| COS | 350 | Systems Programming |
| COS | 360 | Programming Languages |
| COS | 450 | Operating Systems |
| COS | 485 | Design of Computing Algorithms |
| COS | 499 | Ethical Conduct and Social Responsibility |

B. Software Design:

COS $420 \quad$ Object Oriented Design
or
COS 430 Software Engineering
C. Completion of four additional COS courses numbered 300 and above, excluding COS 498.
Graduate courses in the Computer Science Department can be used to fulfill the requirements in section C .
D. Mathematics requirement
(1) Completion of:

| MAT | 152D | Calculus A |
| :--- | :--- | :--- |
| MAT | 153 | Calculus B |

MAT 145 Discrete Mathematics I
COS 280 Discrete Mathematics II
MAT 380 Probability and Statistics (MAT 281 and MAT 282
may together substitute for MAT 380)
(2) One additional mathematics course from the following courses:

MAT 252 Calculus C
MAT 292 Theory of Numbers
MAT 295 Linear Algebra
MAT 350 Differential Equations
MAT 352 Real Analysis
MAT 355 Complex Analysis
MAT 364 Numerical Analysis
MAT 366 Deterministic Models in Operations Research
MAT 370 Non-Euclidean Geometry
MAT 383 System Modeling and Simulation
MAT 395 Abstract Algebra
MAT 460 Mathematical Modeling
MAT 461 Stochastic Models in Operations Research
MAT 490 Topology
MAT 492 Graph Theory and Combinatorics
E. (1) Completion of a two-semester sequence of either

CHY 113K with CHY 114 K and CHY 115 with CHY 116
or
PHY 121K with PHY 114 K and PHY 123 with PHY 116
or
BIO 105K with BIO 106 K and BIO 107
(2) Two additional courses (except introductory courses such as ELE 100) from any of the departments of Engineering, Biological Sciences, Chemistry, Physics, Geosciences, or Environmental Science and Policy, provided that the course is a course in science that can be used for credit toward the degree offered by that respective department. Courses from other departments may also be approved to satisfy this requirement, provided they have a strong emphasis on quantitative measures and the application of the scientific method. For a course with an associated lab to satisfy this requirement, the lab must also be taken. ELE 172 and ELE 271 are excluded because of similarity to COS courses.
F. Communication skills requirement:
(1) Completion of THE 170F
(2) Completion of ITP 210
G. Successful completion of 30 credit hours in the humanities, arts, or social sciences. Courses in these disciplines that satisfy Core curriculum requirements also satisfy this requirement.

## Suggested Schedule

The following schedule of mathematics and computer science courses is typical for the freshman and sophomore years.

|  | Fall | Spring |
| :--- | :--- | :--- |
| First year | COS 160 | COS 161 |
|  | COS 170 | MAT 152D |
| Second year | MAT 145 |  |
|  | COS 280 | COS 250 |
|  | COS 285 | COS 255 |
|  |  | MAT 153 |

## Double Majors

Students who opt to pursue a double major with computer science as one of the major fields of study must satisfy all computer science degree requirements. The general requirements for a double major are listed under the heading Double Major in this catalog.

Minor in Computer Science
A minor in computer science may be obtained by successfully completing the following courses with an accumulative grade point average of 2.0 in these courses: $\operatorname{COS} 160$ and $\operatorname{COS} 170 ; \operatorname{COS} 161 ; \operatorname{COS} 250$ and $\operatorname{COS} 255 ; \operatorname{COS} 285$, and two additional COS courses numbered 250 or greater, excluding COS 498 and COS 499.

Course Fees
Course fees to cover the cost of materials and supplies are assessed in some computer science courses.

## COS 120E Deductive Logic

This course will teach the formal techniques that allow one to infer valid conclusions from valid premises in ordinary English discourse. These rules of propositional and predicate logic are based solely on the logical form of statements, independent of their content, and can be used to analyze rational arguments in any discipline. English sentences will be translated into a more precise symbolic language that elucidates their structure. Prerequisite: successful completion of the USM mathematics proficiency requirement.

Cr 3.

## COS 131 Web Programming

In this course students develop actual Web pages and acquire basic skills in Web programming languages such as JavaScript, VBScript, and Active Server Pages. Other topics include: object model, event model, dynamic HTML, Web-enabled databases, and XML. Prerequisite: a programming course or instructor permission.

Cr 3 .

## COS 141 Visual Basic I

Visual Basic is used to introduce students to the fundamental skills of problem solving and programming. The class includes both classroom presentation and instructor-guided laboratory sessions. Small to medium size programming projects are completed. Prerequisite: a working knowledge of the Windows operating system.

Cr 3.

## COS 142 Visual Basic II

The concepts of COS 141 are extended to present programming in an application development environment. Topics covered in this course include static and dynamic arrays, user defined data types, class modules and dynamic link library development, serial and random access files, database connectivity, advanced Visual Basic controls, ActiveX controls, and Web programming using Active Server Pages. Component Object Modeling (COM) topics will be included. Small to medium size programming projects and a comprehensive final project will be completed. Prerequisite: COS 141 or permission of the instructor.

Cr 3.

## COS 160 Structured Problem Solving: Java

An introduction to the use of digital computers for problem solving, employing the Java programming language as a vehicle. Content includes elementary control structures and data representation methods provided by Java and the top-down programming methodology. Course requirements include a substantial number of programming projects. This course must be taken concurrently with COS 170 . Prerequisite: successful completion of the USM mathematics proficiency requirement.

Cr 3.

## COS 161 Algorithms in Programming

The development of algorithms and their implementations in a higher-level programming language, with emphasis on proper design principles and advanced programming concepts. Introduction
to the performance analysis of algorithms. Course requirements include substantial programming projects. Prerequisites: COS 160, and working knowledge of word processing and Web browsing. Cr 3 .

COS 170 Structured Programming Laboratory Computational experiments will be designed to teach students how to construct reliable software using Java. Topics to be covered include: Windows system, conditional program flow, iteration, procedures and functions, and symbolic debugging. This course must be taken concurrently with COS 160.

Cr 1.

## COS 211 The C Programming Language

A first course in the C programming language. This course should provide students with fundamental skills of C programming. Small to medium size programming projects will be written. Prerequisite: A previous course in problem solving and programming (e.g., COS 160) or instructor's permission. Cr 3.

## COS 212 The UNIX Operating System

Introduction to the UNIX system, system commands, standard editors, shells, and more. Prerequisite: Experience with some computer operating system.

Cr 1 .

## COS 214 C++ for Programmers

Introduces the basics of $\mathrm{C}++$ programming. Covers types, expressions, control structures, functions, and a brief introduction to classes and objects. This course will prepare students for further object-oriented courses. Prerequisite: a previous college-level course in problem solving and programming or instructor's permission.

Cr 3.

## COS 215 Introduction to $\mathrm{C}++$ for C

## Programmers

The changes in the syntax and semantics of C that resulted in $\mathrm{C}++$ are presented. $\mathrm{C}++$ will be covered up to and including a brief introduction to classes and objects. This course will prepare students for further object-oriented courses. Prerequisite: a previous course in problem solving and programming in C (e.g., COS 211) or instructor's permission. Cr 1.

COS 230 Programming in COBOL
A study of the programming language used primarily in business. Prerequisite: COS 160 or analogous experience.

Cr 3 .

## COS 241 Java Programming

Students will develop software using the Java programming language. Some work on connecting Java applets to Web pages using HTML will be included. Prerequisite: a previous course in problem solving and programming, or instructor's permission.

Cr 3.

## COS 246 Programming Topics

Topics to be covered may include programming languages not otherwise offered (e.g., Ada, Smalltalk), different programming methodologies (e.g., object-
oriented programming), assembly languages, and other specific areas of programming. Prerequisite: COS 161 or permission of instructor.

Cr 3 .

## COS 250 Computer Organization

The basic hardware, architecture, and software of computer systems are covered. Subjects include digital logic design, microprogramming, machine languages, assembly languages, and operating systems. Prerequisite: COS 161. This course must be taken concurrently with COS 255 . Normally offered only in the spring semester.

Cr 3 .

## COS 255 Computer Organization Laboratory

Students design, build, and test combinational and sequential logic circuits and write assembly language programs. This course must be taken concurrently with COS 250.

Cr 1.

## COS 280 Discrete Mathematics II

Concepts of modern algebra, set theory, Boolean algebra, elements of graph theory, and their application to computer science. Prerequisites: MAT 145 and COS 160.

Cr 3.

## COS 285 Data Structures

Basic abstract data types and their representations, fundamental algorithms, and algorithm analysis. Consideration is given to applications. Specific topics include linked structures, trees, searching and sorting, priority queues, graphs, and hashing. Course requirements include a substantial programming component. Prerequisites: COS 161, MAT 145 , and calculus, or their equivalents.

Cr 3.

## COS 350 Systems Programming

A study of systems programming concepts and software, including the C programming language and the Unix programming environment and operating system interface. Students develop their abilities in these areas through programming exercises and projects. Prerequisites: COS 250, COS 285. Cr 3.

## COS 360 Programming Languages

Examination of basic concepts and constructs of high-level languages via consideration of several representative languages. Topics include scope of declarations, binding time of constituents, type checking, and control organization. Study of implementation methods for various programming language features. Study of the methods of formal specifications of programming languages: regular, context-free, and attribute grammars and operational semantics. Exposure to programming in languages that deviate from the imperative style such as Lisp and Prolog. Prerequisites: COS 250, COS 285.

Cr 3.

## COS 368 Graphical User Interface Design

Principles of graphical user interface design are utilized to build working interfaces. The programming language used may vary from offering to offering. Possible languages include Java and C++. Students will work in an object-oriented, event-driven envi-
ronment. Prerequisite: COS 285 or instructor's permission. Cr 3 .

## COS 374 Numerical Analysis

A study of the theory and application of computational algorithms for interpolation, equation solving, matrix methods, integration; error analysis. Prerequisites: MAT 252, MAT 295, COS 160, and permission of instructor.

Cr 3.

## COS 399 Programming Autonomous Robots

Introduction to the programming concepts involved with autonomous robotic systems. Using off-the-shelf "robot kits" students will design a simple robotic platform to meet specific goals. Then, using a common platform for the remainder of the course, students will develop their programming capabilities. Simple openended, feedback, and artificial intelligence systems will be explored throughout the course. Several benchmarks and robot competitions will be used to demonstrate the platform and programming learned in the course. Prerequisite: COS $285 . \quad \mathrm{Cr} 3$.

## COS 400 Introduction to Simulation Modeling

Introduction to general principles of discrete event simulation modeling. Topics include design of simulation models, their implementation in a computer simulation language, and analysis of simulation data. Applications will emphasize computer and communication science. Requirements include a substantial programming component. Prerequisites: COS 285 and MAT 380 or equivalent. Cr 3.

## COS 420 Object-Oriented Design

This course will focus on the construction of objectoriented software. Students will learn conceptual models for organizing objects and object hierarchies, an object-oriented design notation, the application of design patterns, and the use of software development methodologies such as the Agile development process. The capabilities will be used to solve relatively complex problems in a group setting. Prerequisite: $\operatorname{COS} 285$.

Cr 3.

## COS 430 Software Engineering

Study of methods applied to large-scale software development, including topics such as requirements analysis and specification, design, validation and verification, and project management, with emphasis on principles of design. Students use methods on a large programming project. Prerequisites: COS 250, COS 285.

Cr 3.

## COS 444 Software Project Management

The course covers project life cycle, including developing the charter, plans and justification, outsourcing and procurement decisions, scope management, time and cost estimation, quality control, personnel management, risk assessment, and the critical role of communication, both internal and external, to the project. Students will learn to lead and participate in significant software projects. Experts from industry will present case studies of success and failure. Prerequisite: COS 420 or $\operatorname{COS} 430$.

Cr 3.

## COS 450 Operating Systems

Bottom up construction of a layered operating system beginning with the hardware interface and ending with the user interface. Specific topics covered include concurrent processes, process management, I/O, virtual memory, file management, resource scheduling, and performance measurement. Students are assumed to be familiar with general machine architecture, functions of system software (compilers, loaders, editors, etc.), data structures, and to have some experience with UNIX or another multiprogramming operating system. Prerequisites: COS 250, COS 350.

Cr 3 .

## COS 452 Computer Graphics

A study of the techniques involved in computer graphics systems. Topics include: point-plotting and line drawing in two- and three-dimensional space; clipping and windowing; geometric modeling; algorithmic solutions to the hidden line and hidden surface problems. Prerequisite: COS 285.

Cr 3.

## COS 455 Computer Architecture

Fundamentals of the design and organization of digital computers. Topics include applications of Boolean algebra to logical design; machine algorithms used in addition, subtraction, multiplication, etc.; types of memory; synchronous and asynchronous operation; minimization of logic circuits. Also, concepts from microprocessors and large parallel computers. Prerequisite: COS 250.

Cr 3.

## COS 457 Database Systems

Study of the methods and principles of database management systems (DBMS). Topics addressed include DBMS objectives and architecture, data models, data definition and data manipulation languages, and providing Internet access to databases. The entity-relationship and relational models are emphasized and their use required in a design project. Prerequisites: COS 280, COS 285 . Cr 3.

## COS 460 Computer Networks

An introduction to computer networks. Computer network architecture is described. Other topics include digital data communication, local area networks, wide area networks, internetworks, and the Internet. Specific technologies, including Ethernet and ATM, and protocols, including TCP/IP, will be considered in detail. Prerequisite: COS 285. Cr 3.

## COS 465 Distributed Systems

An introduction to the design and operation of distributed systems. Topics include client-server models, interprocess communications, RPC, replication and consistency, online transaction processing, error and fault recovery, encryption and security. Examples will be taken from extant distributed systems. Prerequisites: COS 450 and $\operatorname{COS} 460$, or their equivalents, or permission of the instructor. Cr 3.

## COS 467 Performance Analysis of Distributed Systems

The objective of the course is to learn techniques
that enable assessing the performance of applications running on distributed systems. This is an important topic because software developers should have a good understanding regarding the performance of the distributed applications they develop. This course presents techniques such that the performance of distributed applications can be evaluated. Topics to be covered include queueing theory, simulation, availability, and performability modeling. Other techniques used to assess the performance of distributed systems will be introduced as needed. Prerequisites: COS 450 or $\operatorname{COS} 460$, and MAT 281 or MAT 380.

Cr 3.

## COS 469 Compiler Construction

Definition of languages via context-free grammars. Organization of a compiler into phases of lexical analysis, parsing, code generation, and optimization. Students will implement a compiler for a Pascal-like language. Prerequisite: $\operatorname{COS} 360$. Cr 3.

## COS 470 Topics in Computer Science

Topics to be covered may include philosophy of computers, history of computers, computers and society, simulation, graphics, and other advanced topics. Prerequisite: COS 285 or permission of the instructor.

Cr 3.

## COS 471 Advanced Database Systems

This course covers object-oriented and XML database technologies, their interfacing and integration. Object-oriented topics include developments from industrial standards such as ODMG and Java Data Objects, query languages such as OQL, Java database technology, object-relational systems, and language integrated queries such as LINQ. The XML technology is represented by schema languages such as XML Schema and query languages such as XQuery. Object-oriented interfaces to XML include DOM, LINQ to XML, LINQ to XSD, as well as other industrial developments. The course includes hands-on experience with advanced database management systems. The requirements include an object-oriented software and database development project, addressed by teams, and a term paper. Prerequisite: permission of the instructor. Cr 3.

## COS 472 Artificial Intelligence

An introduction to the underlying concepts and applications of intelligent systems. Topics include pattern matching, production systems, computer representations of knowledge, heuristic search techniques and computer problem solving, and automatic theorem proving. The programming language Lisp is introduced. Students will develop programs in Lisp applying the concepts and techniques introduced.

Cr 3.

## COS 476 Advanced Object-Oriented Design

This course considers developing object-oriented, multi-tier, Web-based applications. Topics will include object-oriented design patterns in distributed environments, software components, and software
frameworks. The course also has a significant handson implementation component, and after having completed this course, students will have practical experience with several leading distributed object technologies, including AJAX, Web Services, Enterprise JavaBeans, JDBC, and Servlets. The course is structured so that students will work in teams to develop a medium-sized, multi-tier application that incorporates several of the technologies mentioned above. Lectures will provide an introduction to the technologies and discuss principled ways to apply these technologies. Prerequisite: COS 420 or permission of instructor.

## COS 478 Advanced Java Technology

The goal of this course is to provide an in-depth study of the most important and the more advanced components of the Java technology. The course covers topics such as concurrent object-oriented programming in Java, Java Core Reflection, the underlying virtual platform (the Java Virtual Machine), genericity (parametric polymorphism), persistence, and assertions. Programming assignments include concurrent programming, programming with parametric collection types, dynamic loading and compilation, usage of the Java reflective capabilities, and usage of persistent capabilities available in Java and in its extensions. The outcome of this course is a high-level of professional expertise in the overall Java technology. Prerequisite: COS 360 . Cr 3.

## COS 479 Object-Oriented Software Technology

This course combines formal and practical object-oriented software techniques in developing the following main themes of object-oriented software technology: (i) object-oriented software systems that provide efficiency and reliability based on an advanced type system and (ii) correctness and behavioral compatibility in software re-use based on object-oriented assertion languages and programming by contract methodology. Practical implications and usage of the general notions such genericity, self typing and reflection in complex software systems will be based on type systems of major object-oriented languages such as Java, C\# and Eiffel. The assertion languages demonstrating the main themes in this course are JML (Java Modeling Language) and Spec\# (an assertion language for $\mathrm{C} \#$ ). The programming assignments are based on a pragmatic methodology for object-oriented software construction (programming by contract) along with the associated tools including program erification techniques and systems. Prerequisite: COS 360.

Cr 3.

## COS 480 Theory of Computation

Study of the theoretical foundations of computer science, including elements of set theory and logic, the specification of formal languages via finite automata, regular expressions, push-down automata, context free grammars, and Turing machines. Also intro-
duces the concepts of recursive and recursively enumerable sets. Prerequisite: COS $280 . \quad$ Cr 3.

## COS 485 Design of Computing Algorithms

An introduction to the design and analysis of algorithms. Techniques for designing algorithms, such as divide-and-conquer, greedy method, dynamic programming, and backtracking are emphasized and illustrated. Many problems of practical importance are covered including: minimum spanning tree, single source shortest path, traveling salesperson, and graph search. The concepts of NP-completeness are also considered. Substantial programming in a highlevel language. Prerequisite: COS 285.

Cr 3.

## COS 495 Advanced Web Architectures

The focus of communication over the Internet is shifting to computer-to-computer interaction. Standards for this interaction (ebXML, SOAP, WSFL) are now in place and maturing, and commercial use is exploding. We will survey these standards and evaluate their security, efficiency, and completeness. We will construct several case studies, including Web-based commerce. As a team, we will acquire and learn how to use available tooling, and we will put together working Web services and test their ability to interact with each other. Prerequisites: COS 285 and junior standing. Cr 3.

## COS 497 Independent Study in Computer Science

An opportunity for juniors and seniors who have demonstrated critical and analytical capability to pursue a project independently, charting a course and exploring an area of interest within their major field. At most, three credits of COS 497 can be used to satisfy requirement C, as noted under Programs and Requirements. Prerequisites: junior or senior standing and permission of the Department chair and instructor.

Cr 1-3.

## COS 498 Computer Science Internship

An opportunity for students to gain practical experience in computer science-related employment. The University internship program provides placement. This course is offered on a pass/fail basis only, does not fulfill any computer science requirement, and a maximum of 6 credits may be taken.

Cr 3.

## COS 499 Ethical Conduct and Social Responsibility

A study of ethical perspectives and social responsibilities of computer professionals. Assigned readings provide the basis for class discussions of such issues as social control and privacy, computer viruses, ACM code of professional conduct, hacking, limits of correctness in computer software, military influence on computer science research and education. Prerequisite: senior standing. Normally offered in spring semester only. Cr 1.

# Department of Engineering 

Chair of the Department:
Professors: Guvench, Hodgkin; Associate Professors:, Jankowski, Lück, Smith; Adjunct Professors: Kurkjian, Masi, Most

Engineering is a challenging profession concerned with the design, development, fabrication, and control of physical devices and systems.

The mission of the Engineering Department is to provide a solid and complete engineering education built upon a foundation of mathematics, science, and liberal arts. Our undergraduate programs are broadly based, but there are opportunities to specialize. Computer usage is integrated throughout the curriculum. Internships and co-ops with our industrial partners are available to students at all levels.

The Department serves both traditional and nontraditional students who are diverse in academic background, age, and life experience. The Department also provides a technical resource to the community by linking the teaching, research, and public service capabilities of the Department with the needs of the industries, organizations, and institutions of southern Maine.

Graduates of the program are prepared to:

- function as engineers in technologically intensive firms;
- succeed in post-baccalaureate study;
- transfer their engineering skills to different environments; and
- contribute to society as broadly educated, articulate, and ethical professionals and citizens.
These objectives are complementary to and in addition to the general education objectives of the University.

Engineering programs include bachelor of science degree programs in electrical engineering and in mechanical engineering, a concentration in computer engineering, minors in electrical and mechanical engineering, and the first year or more for several other engineering specialties.

The Engineering Department is committed to maximizing the student's potential to achieve his or her academic goals. Upon admission, the student is assigned an academic advisor from the engineering faculty and staff. The student is then expected to meet with the advisor every semester before registering for classes. Regular contact with an academic advisor ensures that students receive adequate assistance in selecting courses, and that all students make satisfactory progress toward meeting their academic goals.

Please visit our Web site at www.usm.maine.edu/engineering for additional and more recent information about the Department and the programs.

## Admission Requirements

## Programs and Requirements

Preparation for an undergraduate engineering program should include high school English, chemistry, physics, and mathematics including algebra and trigonometry.
General Requirements for Bachelor of Science in Engineering Degrees
(both electrical and mechanical)
Mathematics
MAT 152D
MAT 153
MAT 252
MAT 350
MAT 380
Compulculus A
COS 160, 170
Basic Science
CHY 113K, 114K
Pifferential Equations
PHY 121K, 114K
PHY Grinciples of Chemility and Statistics
Communication
ENG 100C

EGN 301
EGN 304
EGN 362
EGN 402,403
Electrical Engineering
ELE 216
ELE 217
ELE 323

Design Project I: The Engineering Profession
Engineering Economics
Materials Science
Design Project II and III
Circuits I: Steady-State Analysis
Circuits II: System Dynamics
Electromechanical Energy Conversion

Mechanical Engineering
MEE 230
Thermodynamics I
Technical Electives
Four technical electives are required, with at least 2 in the major engineering discipline, and at least 3 in engineering disciplines. EGN electives are general engineering courses that contain both electrical and mechanical elements; they are applicable to both majors. The fourth required technical elective may be chosen from physics, chemistry, mathematics, computer science, electrical engineering, mechanical engineering or other technical disciplines as available and approved by the student's academic advisor.

For graduation, engineering majors must maintain an overall grade point average of 2.0 and a cumulative grade point average of 2.0 in engineering courses.

Certain engineering courses require junior standing. For the purposes of eligibility for engineering courses, junior standing is defined as having successfully completed a minimum of 6 credit hours in engineering courses at or above the 300-level.

University Core curriculum requirements are outlined elsewhere in this catalog. Some requirements of the engineering degrees also satisfy Core curriculum requirements.

## I. Bachelor of Science in Electrical Engineering

The electrical engineering program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

Requirements for the degree include the following (italicized classes are general engineering requirements for both the electrical and mechanical engineering degrees):

General Engineering
EGN 301 Design Project I: The Engineering Profession

EGN 304 Engineering Economics
EGN 362 Materials Science
EGN 402, 403 Design Project II and III
Electrical Engineering

| ELE | 172 | Digital Logic |
| :--- | :--- | :--- |
| ELE | 216 | Circuits I: Steady State Analysis |

ELE $217 \quad$ Circuits II: System Dynamics
ELE 262 Physical Electronics
ELE 271 Introduction to Microprocessors
ELE 314 Linear Signals and Systems
ELE 323 Electromechanical Energy Conversion
ELE 342, 343 Electronics I and II
ELE 351 Electromagnetic Fields
Mechanical Engineering
MEE 230 Thermodynamics I
Technical Electives
Four technical electives are required, with at least two in electrical engineering and at least three in engineering disciplines. EGN electives are general engineering courses that contain both electrical and mechanical elements; they are applicable to both majors. As such, they may be counted as electrical engineering courses for the purpose of satisfying these requirements. The fourth required technical elective may be chosen from physics, chemistry, mathematics, computer science, electrical engineering, mechanical engineering or other technical disciplines as available and approved by the student's academic advisor.
Credits to graduate: 128

## Computer Engineering Concentration

Students with a particular interest in the design and application of computer hardware and software systems may choose the computer engineering concentration. The requirements for the bachelor of science degree in electrical engineering with a concentration in computer engineering differ from the standard electrical engineering degree as follows:

Students in the concentration are not required to take ELE 323, ELE 343, ELE 351, EGN 362, or MEE 230. Instead, they are required to take COS 161, COS 285, COS 350, ELE 373 and a computer science elective, as approved by the student's academic advisor, for a program total of at least 126 credits.

For graduation, majors of the electrical engineering with a concentration in computer engineering must maintain an overall grade point average of 2.0 and a cumulative grade point average of 2.0 in engineering and computer science courses.

## Minor in Electrical Engineering

A minor in electrical engineering may be obtained by successfully completing the following courses with a cumulative grade point average of 2.0: ELE 172, ELE 216, ELE 217, ELE 262, and two additional 3- or 4-credit electrical engineering courses at or above the 300 -level, or as approved by the student's engineering advisor. Prerequisites for these courses must also be completed successfully.

## II. Bachelor of Science in Mechanical Engineering

The mechanical engineering program officially began in the fall of 2006. Pursuant to ABET guidelines, accreditation is scheduled to follow after the first graduating class.

Requirements for the degree include the following (italicized classes are general engineering requirements for both the electrical and mechanical engineering degrees):

General Engineering
EGN 301 Design Project I: The Engineering Profession
EGN 304 Engineering Economics
EGN 362 Materials Science
EGN 402, 403 Design Project II and III
Mechanical Engineering

| MEE | 150 | Applied Mechanics: Statics |
| :--- | :--- | :--- |
| MEE | 230 | Thermodynamics I |
| MEE | 251 | Strength of Materials |
| MEE | 270 | Applied Mechanics: Dynamics |
| MEE | 332 | Thermal Systems |
| MEE | 341 | Transport Phenomena Laboratory |
| MEE | 360 | Fluid Mechanics |
| MEE | 372 | Mechanisms |
| MEE | 373 | Controlled Mechanisms |
| Electrical Engineering |  |  |
| ELE | 216 | Circuits I: Steady State Analysis |
| ELE | 217 | Circuits II: System Dynamics |
| ELE | 323 | Electromechanical Energy Conversion |

Technical Electives
Four technical electives are required, with at least two in mechanical engineering and at least three in engineering disciplines. EGN electives are general engineering courses that contain both electrical and mechanical elements; they are applicable to both majors. As such, they may be counted as mechanical engineering courses for the purpose of satisfying these requirements. The fourth required technical elective may be chosen from physics, chemistry, mathematics, computer science, electrical engineering, mechanical engineering or other technical disciplines as available and approved by the student's academic advisor.
Credits to graduate: 126

## Minor in Mechanical Engineering

A minor in mechanical engineering may be obtained by successfully completing the following courses with a cumulative grade point average of 2.0: MEE 150, MEE

230, MEE 251, MEE 270, and two additional 3- or 4-credit mechanical engineering courses at or above the 300 -level, or as approved by the student's engineering advisor. Prerequisites for these courses must also be completed successfully.

## III. Transfer Programs for Other Engineering Disciplines

The engineering transfer program prepares students to begin engineering studies at USM and then complete engineering degrees at the University of Maine or elsewhere. All University of Southern Maine students in this program are eligible to transfer to any accredited engineering program in the country for the completion of the program.

## Course Fees

Course fees to cover the cost of materials and supplies are assessed in some engineering courses.

## EGN 100 Introduction to Engineering

Beginning in the fall of 2009, EGN 100 Introduction to Engineering is replaced by EYE 112 The Built Environment. Engineers use mathematics and apply scientific principles to design, create, modify, and control physical systems. They communicate effectively in both written and oral forms, and work in teams as well as alone. This course introduces students to the tools, tasks, and culture of engineering. Students use spreadsheets to solve problems and graph the results. Through class work, laboratory exercises, and independent research, students learn fundamental concepts of devices such as batteries and motors. The course culminates with a project in which student teams design, build, test, demonstrate, and document a device, utilizing the knowledge and skills acquired in the early part of the course. Lecture 1 hr., Lab 3 hrs.

Cr 3.

## EGN 301 Design Project I: The Engineering Profession

The fundamental mission of engineering is design. Students, working in teams, learn the fundamentals of developing a specific problem statement, flowcharting, researching, project management, and design actualization. Professional issues such as ethics, intellectual property, interview skills, and resume preparation are explored. The student is challenged to consider the work of the engineer in the broader context of societal, personal, and professional responsibility. Prerequisite: junior standing. Lecture 3 hrs.

Cr 2.

## EGN 304 Engineering Economics

Economic analysis of engineering projects, cost concepts and design economics, cost estimation techniques, money-time relationships, comparing alternatives, depreciation and taxes, benefit-cost ratio, decision making under risk and uncertainty, capital investments and replacement. Prerequisite: junior standing. Lecture 3 hrs .

Cr 3 .

## EGN 325 Control Systems

Introduction to feedback control systems. Modeling and analysis of control systems using frequency response, root locus, and state-space methods. Design and compensation of feedback control systems. Prerequisite: ELE 217. Lecture 3 hrs . Cr 3 .

## EGN 362 Materials Science

Concepts of relationships between structure, composition, and thermal, optical, magnetic, electrical and mechanical properties of metals, ceramics, glasses, and polymers. Prerequisites: PHY 123, MAT 153, CHY 113K. Lecture 3 hrs. Cr 3.

## EGN 394 Engineering Internship

Work experience in engineering. An opportunity for students to obtain credit for a project or study sequence completed while employed. The activity must have both components of design and analysis and be pre-approved by the instructor. Prerequisites: junior standing, permission.

Cr 1-3.

## EGN 402 Design Project II

Proposal and measurable advances toward the design and implementation of a device or system to perform an engineering function. May be done individually or in small groups, but the contribution is evaluated on an individual basis. The student must secure a project advisor among the engineering faculty who agrees to supervise the proposed project. This is the first of a two-semester sequence, culminating with a progress report and to be followed by EGN 403. Prerequisites: EGN 301 and project advisor permission.

Cr 3 .

## EGN 403 Design Project III

Completion of the design and implementation of a device or system to perform an engineering function. May be done individually or in small groups, but the contribution is evaluated on an individual basis. This is the second of a two-semester sequence, culminating in an oral presentation, demonstration of the device or system, and delivery of the final report. Prerequisites: EGN 402 and project advisor permission.

Cr 3.

## EGN 417 Robot Modeling

Kinematics, statics, and dynamics of serial manipulators. Analysis and design of robotic structures. Examples of multiple platforms in the Robotics and Intelligence Systems Laboratory. Complements EGN 418. Prerequisites: ELE 217, COS 160. Lecture 3 hrs.

Cr 3.

## EGN 418 Robot Intelligence

Motion control, trajectory and path planning, actuators and sensors, artificial intelligence, and programming of robotic devices. Case study of multiple platforms in the Robotics and Intelligence Systems Laboratory. Complements EGN 417. Prerequisites: ELE 217, COS 160. Lecture 3 hrs., Lab. 1 hr .

Cr 3.

## EGN 446 Micro Electromechanical Systems

Topics include microfabrication, principles of electromechanical energy conversion and transduction, sensors and actuators, materials used for MEMS and their thermal, electrical, and mechanical properties, micro-electromechanical building structures and MEMS design. Prerequisites: ELE 323 or ELE 342, and permission. Lecture 3 hrs . Cr 3.

## EGN 497 Independent Study

An opportunity for the student to explore topics not covered in available courses or to pursue a topic of interest in-depth. By prearrangement with a faculty member. Prerequisite: permission. Cr 1-3.

## EGN 498 Selected Topics in Engineering

Topics in engineering not regularly covered in other courses. The content can be varied to suit current needs. The course may, with permission of the Department, be taken more than once. Consult the Department for current offerings and prerequisites.

Cr 1-3.

## ELE 172 Digital Logic

Introduction to the design of binary logic circuits. Combinatorial and sequential logic systems. Design with small and medium scale integrated circuits and programmable logic devices (PLDs). Registers, counters, and random access memories (RAMs). The algorithmic state machine (ASM). Lecture 3 hrs., Lab. 2 hrs.

## ELE 216 Circuits I: Steady-State Analysis

An examination of fundamental circuit laws and theorems, network analysis, physical properties and modeling of resistors, inductors, and capacitors. Sinusoidal steady-state operation, phasors, impedance, power, three-phase systems, and the ideal transformer. The course also covers the operation of meters, oscilloscopes, power supplies, and signal generators. Prerequisites: MAT 153, PHY 123. Lecture 3 hrs., Lab. 2 hrs. Cr 4.

## ELE 217 Circuits II: System Dynamics

Time-domain analysis of first- and second-order systems, based on electric circuits, but drawing analogy to mechanical, fluid, and thermal systems. Study and application of the Laplace transform for the solution of differential equations governing dynamic systems. Frequency domain analysis, transfer functions, poles and zeros, frequency response, basic filtering, and resonance. Principles of control, feedback, and stability. Prerequisite: ELE 216. Lecture 3 hrs., Lab. 2 hrs.

Cr 4.

## ELE 262 Physical Electronics

Basic characteristics and properties of materials of importance in solid-state engineering. Particular emphasis is placed on atoms, crystal structures, electronic conductivity, semiconductor theory and bipolar and field effect transistors. Prerequisites: CHY 113K, PHY 123. Lecture 3 hrs. Cr 3.

## ELE 271 Introduction to Microprocessors

Introduction to microprocessors: architecture, operating principles, and programming. Binary representation and algebra. The microcomputer and its component parts: central processing unit, memory, input-output, and microcontrollers. Prerequisite: ELE 172. Lecture 3 hrs., Lab. 2 hrs. Cr 4.

## ELE 314 Linear Signals and Systems

Introduction to the theory of linear signals and systems. Linear time-invariant system properties and representations; differential and difference equations; convolution; Fourier analysis; Laplace and Z transforms. Selected topics in sampling, filter design, digital signal processing, and modulation. Prerequisite: ELE 217. Lecture 3 hrs., Lab 2 hrs.

Cr 4.

## ELE 323 Electromechanical Energy Conversion

Basic concepts of magnetic circuits and transformers. Three-phase system and power transmission. Conversion between electrical and mechanical energy through magnetic fields. Study of direct current motors and generators. Study of alternating current machines: induction motors, synchronous
machines, and single-phase motors. Prerequisite: ELE 216. Lecture 3 hrs., Lab. 2 hrs. Cr 4.

## ELE 342 Electronics I

Fundamentals of electronic circuits with emphasis on the nonlinear nature of electronic devices, their modeling and applications in power conversion, waveshaping and small signal amplification. Analysis, design, and SPICE simulation of such circuits. Prerequisites: ELE 262, ELE 217. Lecture 3 hrs., Lab. 2 hrs.

Cr 4 .

## ELE 343 Electronics II

Analysis and design of multistage amplifiers. Principles of operation of analog and digital integrated circuit building blocks. Applications in signal generation, amplification, and waveshaping. Topics include differential, multi-stage, and power amplifiers; frequency response of transistor amplifiers; feedback amplifiers and oscillators; operational amplifiers and applications; I.C. logic families. Prerequisite: ELE 342. Lecture 3 hrs., Lab. 2 hrs.

Cr 4.

## ELE 351 Electromagnetic Fields

Static electric and magnetic fields; properties of dielectric and ferromagnetic materials; time varying fields, Faraday's law, Maxwell's equations; plane waves in dielectric and conducting media; calculation of the fields and other properties of common transmission lines and other devices. Prerequisites: MAT 252, PHY 123. Lecture 3 hrs .

Cr 3.

## ELE 363 Solid State Electronic Devices

The theory of selected solid state electronic devices and an introduction to device fabrication technology. Devices studied include bipolar junction-based structures, MOS, and optoelectronic devices. An occasional laboratory period may be substituted for equivalent class time. Prerequisite: ELE 262. Lecture 3 hrs .

Cr 3.

## ELE 371 Microprocessor Systems

The organization of microprocessor-based computers. Microprocessor architecture and operation; buses and system concepts; memory system organization and operation; software and programming: instruction formats and addressing modes. Inputoutput concepts: programmed I/O, interrupts. Microprocessor arithmetic. Prerequisites: ELE 271. Lecture 3 hrs., Lab. 1 hr.

Cr 3.

## ELE 373 Digital System Architecture and Design

Algorithmic approaches to digital system design. Methods of design and testing of multi-input, multioutput logic systems including arithmetic units, logic controllers, and microprocessors. Logic design with PLDs, FPGAs, and VHDL. Prerequisite: ELE 172. Lecture 3 hrs ., Lab. 1 hr .

Cr 3.

## ELE 412 Power Electronics

Introduction to power electronics and power semiconductor devices. Analysis, performance characteriza-
tion, and design of power electronics converters such as: rectifiers, DC choppers, AC voltage controllers, and single-phase inverters. Operation of DC motor drives. Prerequisites: ELE 342. Lecture 3 hrs. Cr 3.

## ELE 442 Digital VLSI Circuits and Design

Principles of internal circuit and layout design of digital VLSI circuits. CMOS technology is emphasized. Topics include NMOS and CMOS processes, device physics and SPICE models, logic circuits, electrical and physical design of logic gates, dynamic CMOS circuits, memory, chip layout principles, parasitics, and performance estimation. Simulation, layout, and electronic design automation tools are demonstrated and used. Prerequisites: ELE 172, ELE 342. Lecture 3 hrs., Lab. 1 hr.

Cr 3 .
ELE 444 Analog Integrated Circuits and Design
Principles of internal circuit operation and design of analog integrated circuits with emphasis on CMOS technology. Topics include analog CMOS processes, devices and device models, bias and reference sources, differential and high gain amplifiers, OTAs and operational amplifiers, frequency response, feedback, stability and internal compensation with emphasis on the design of CMOS operational amplifiers, power stages and dc regulators. SPICE simulation, layout and electronic design automation tools are demonstrated and used in homework and design projects. Prerequisite: ELE 343. Lecture 3 hrs., Lab. 1 hr.

Cr 3 .

## ELE 445 Special Topics in CMOS Integrated Circuit Design

Special topics such as high performance operational amplifiers, silicon integrated sensors and sensor interface circuits, switched capacitor circuits, oscillators and integrated waveform generators, phase-locked-loop circuits, memory, etc., are covered with emphasis on three chosen topics with instructor guided projects leading to chip level design of these circuits. SPICE simulation verifications, layout and electronic design automation tools are used extensively. Prerequisite: ELE 343. Lecture 3 hrs., Lab. 1 hr.

Cr 3 .

## ELE 464 Microelectronic Fabrication

Principles of the processes used in the fabrication of integrated circuits in bipolar and CMOS technologies. Photolithography, crystal and epitaxial growth, oxidation, diffusion and ion implantation, chemical and physical film deposition and etching. Process and component design. Experiments on wafer processing and characterization. Prerequisite:, ELE 342. Lecture 3 hrs., Lab. 1 hr.

Cr 3.

## ELE 467 Optoelectronics

Properties and applications of optoelectronic devices and systems. Topics include radiation sources (LEDs and semiconductor lasers), photodetectors and detector circuits, solar cells, fiber optics, and electro-optical system components. Prerequisite:, ELE 342. Lecture 3 hrs., Lab. 1 hr . Cr 3 .

## ELE 468 Electronic Properties of Engineering Materials

Properties of conductive, dielectric, polar, magnetic, and other technologically important materials with a view toward understanding their behavior and application in electronic devices. Measurement techniques and production technology will be considered. Part of the course will deal with reading and interpreting published articles in technical journals. Prerequisites: ELE 262, EGN 362. Lecture 3 hrs.

Cr 3.

## ELE 483 Communications Engineering

Basic principles of modern communication engineering. Analog and digital signals and systems; analysis methods. Modulation techniques: AM, FM, and carrier modulation of digital signals. Baseband signaling and coding. Noise in communication systems. Prerequisites: MAT 350, ELE 314. Lecture 3 hrs.

Cr 3 .

## ELE 486 Digital Signal Processing

Basic principles of processing digital signals. Sampling and quantization. Time and frequency domain representation and analysis of discrete-time signals and systems. FIR and IIR systems. Digital filter design; review of classic analog filter design (Butterworth, Chebychev). Quantization and finite-precision effects. DSP hardware. Computers will be used to design and realize various signal processors. Prerequisites: ELE 314, COS 160. Lecture 3 hrs.

Cr 3.

## ELE 489 Digital Image Processing

The theory and practice of digital processing of images by computer. Introduction to two-dimensional signal processing theory: sampling, transforms, and filters. Image acquisition and representation; enhancement methods; image coding; image analysis; and image processing hardware. Prerequisites: ELE 314, COS 160. Lecture 3 hrs. Lab. 1 hr .

Cr 3.

## ELE 498 Selected Topics in Electrical Engineering

Topics in electrical engineering not regularly covered in other courses. The content can be varied to suit current needs. The course may, with permission of the department, be taken more than once. Consult the Department for current offerings and prerequisites.

Cr 3.

## MEE 150 Applied Mechanics: Statics

A study of force systems and equilibrium, structural models, friction, distributed forces. Designed to develop the ability to analyze and solve engineering problems. Prerequisites: MAT 152D, PHY 121K. Lecture 3 hrs.

Cr 3 .

## MEE 230 Thermodynamics I

Energy and energy transformations, the First and Second Laws applied to systems and to control volumes, thermodynamic properties of systems, availability of energy. Prerequisites: MAT 153, PHY 121 K . Lecture 3 hrs .

Cr 3.

## MEE 251 Strength of Materials

The principles of solid mechanics and their applications to practical problems, stresses and deflections in axial loading, torsion, beams, columns, combined stresses. Prerequisites: MEE 150, MAT 153. Lecture 3 hrs .

Cr 3 .

## MEE 270 Applied Mechanics: Dynamics

Motion of particles and rigid bodies, impulse and momentum, work and energy and simple harmonic motion, force, mass, and acceleration. Prerequisites: MEE 150, MAT 252. Lecture 3 hrs.

Cr 3 .

## MEE 332 Thermal Systems

The basic principles of thermodynamics, heat transfer, and fluid mechanics are used to develop analytic models of mass, momentum, and energy balance in systems of practical importance to all engineers. The following topics will be used to develop these models: properties of materials, the Bernoulli equation, the first and second law of thermodynamics, fluid mechanics of internal and external flow, and the principles of heat transfer. Prerequisite: MEE 230. Lecture 3 hrs .

Cr 3.

## MEE 341 Transport Phenomena Laboratory

Laboratory experiments designed to illustrate the concepts of heat, mass, and momentum transfer studied in MEE 332 and MEE 360. Corequisites: MEE 332 and MEE 360. Lab. 2 hrs. Cr 1.

## MEE 360 Fluid Mechanics

Includes fluid statics, kinematics, Bernoulli equation, free-surface flow, viscosity, friction, dimensional analysis and similitude, and an introduction to compressible flow. Prerequisites: MEE 230, MEE 270, MAT 350. Lecture 3 hrs. Cr 3.

## MEE 361 Physical Metallurgy

This course presents the basic science and engineering of steel and other technologically important metals to students. The course begins with a fundamental description of the phases and structure that are found in ferrous systems. Critical temperature and phase diagrams are covered in detail. The concept of transformation kinetics, important to all materials disciplines, is introduced. This leads to the study of heat treatment for ferrous and other materials. The physical metallurgy of welding is developed with particular reference to the phase transformation, both liquid-solid and solid-solid which occurs in the weld and the heat-affected zone. Prerequisite: EGN 362. Lecture 3 hrs. Cr 3.

## MEE 372 Mechanisms

The design of mechanical components, including shafts, screws, fasteners, springs, bearings, and gears and gear trains. Use of computer analysis and
design tools. This course also covers solid modeling of machine components, prototyping, creation of assemblies, and engineering drawings and materials selection. Lab: Introduction to hydraulic, pneumatic, and electrically driven systems. Introduction to programmable controllers. Student design project. Prerequisites: MEE 251, MEE 270. Lecture 3 hrs., Lab. 2 hrs.

Cr 4.

## MEE 373 Controlled Mechanisms

Coupled systems, power transmission, and flexible mechanical elements are introduced. Welding, bonding, and the design of permanent joints are presented. Design for reliability concepts are considered including statistical failure analysis techniques. Student design project. Prerequisite: MEE 372. Lecture 3 hrs., Lab. 2 hrs.

Cr 4.

## MEE 374 Fundamentals of Mechanical Vibrations

Concepts and techniques to develop and simplify a geometric model of a vibratory system, including model schematic, model parameters, degree of freedom, equivalent elements/systems and energy methods. Free-body diagrams and elemental equations of a vibratory system. Single degree-of-freedom vibrations, damping, harmonic and non-harmonic excitations. Multiple degree-of-freedom vibrations, free vibrations and multiple modes, the eigenvalue problem, forced vibrations. Vibration control in engineering design, vibration isolation and absorption. Prerequisite: ELE 217. Lecture 3 hrs. Cr 3.

## MEE 432 Heat Transfer

The fundamental laws of heat transfer by conduction, convection, and radiation, applied to the study of engineering problems via analytical, numerical, and graphical techniques. Prerequisites: MEE 360, MAT 350

Cr 3 .

## MEE 435 Advanced Thermal Systems

Apply the principles of thermodynamics, fluid mechanics, and heat transfer to engineering systems. These systems include but are not limited to power generation, heating ventilating and air conditioning (HVAC), internal combustion engines, manufacturing processes. The concept of energy efficiency will be emphasized. Prerequisites: MEE 332, MAT 350. Lecture 3 hrs .

Cr 3.

## MEE 498 Selected Topics in Mechanical Engineering

Topics in mechanical engineering not regularly covered in other courses. The content can be varied to suit current needs. The course may, with permission of the department, be taken more than once. Consult the Department for current offerings and prerequisites.

Cr 3.

# Department of Environmental Science 

Chair of the Department: Samantha Langley-Turnbaugh, 106 Bailey Hall, Gorham Professors: Langley-Turnbaugh, Sanford; Associate Professor: Wagner; Research Professor: Incze; Assistant Research Professor: Wilson; Adjunct Professor: Fitts; Adjunct Assistant Professors: Dodge, Martinez

The Department of Environmental Science offers three degrees: B.A. in environmental planning and policy, B.S. in environmental science, and a B.S. in environmental safety and health. Each of these prepares students for a variety of professional roles in the environmental and safety fields, and encourages students to pursue graduate academic and professional degrees and professional certifications. Our graduates find employment in many environmental settings, including federal, state, and local government; environmental and civil consulting and engineering, environmental education and teaching, private industry ranging from health care to semiconductor manufacturing, applied research, environmental advocacy, and community planning.

All students in the Department of Environmental Science complete a core set of courses and laboratory training in a broad range of perspectives and skills including environmental science, ecology, chemistry, communication, environmental regulations, impact assessment, and research methods. Additionally, the program requires students to specialize in an area of choice. Students choosing the environmental science option will study topics such as forest, wetland and plant ecology, and soil and water quality. Students choosing the environmental planning and policy option will study topics such as policy analysis, environmental impact assessment, and risk assessment. Students opting for environmental safety and health will study the total work environment including air and water quality, ergonomic issues, and safety concerns. Near the end of their programs, all students apply their knowledge in a professional setting with a required internship.

A core interdisciplinary faculty representing all these areas is on hand to work with and guide students who are encouraged to participate in research with Departmental faculty. Faculty stress problem-based service learning by examining and solving local environmental problems.

Our location in greater Portland provides opportunities to examine a broad range of environmental and safety problems and issues in both rural (agricultural or forested) and urban (industrial and commercial) settings.

## Programs and Requirements

## Bachelor of Arts (Option 1: Environmental Planning and Policy), Bachelor of Science (Option 2: Environmental Science and Option 3: Environmental Safety and Health)

The minimum number of credits required for the major is 86 (depending on which of the degrees is selected) plus the 34 credits required of the University's Core curriculum. Note that these Departmental major requirements include 13 credits of Core curriculum. In order to graduate with a minimum of 120 credits, the student must not require any remedial work and all electives (taken here or transferred) must fit into the student's program of study, which is approved for each student by the Departmental faculty. A student must achieve at least a 2.0 grade point average and must earn at least a C- in each course applied toward completion of the major.

| Required Courses |  |  |
| :---: | :--- | :--- |
| ESH | 341 | Environmental Regulations |
| ESP | 101 K | Fundamentals of Environmental Science |
| ESP | 102 K | Fundamentals of Environmental Science Lab |
| ESP | 125 K | Introduction to Environmental Ecology |
| ESP | 126 K | Introduction to Environmental Ecology Lab |
| ESP | 150 | Field Immersion |
| ESP | 203 W | Environmental Communication |
| ESP | 280 | Research and Analytical Methods |
| ESP | 401 W | Environmental Impact Assessment |
| ESP | 400 | Internship* |
| ESP | 475 | Senior Seminar |
| CHY | 113 K | Principles of Chemistry I |

$\left.\begin{array}{lll}\text { CHY } & 114 \mathrm{~K} & \begin{array}{c}\text { Principles of Chemistry I Lab } \\ \text { and }\end{array} \\ \text { CHY } & 115 & \begin{array}{c}\text { Principles of Chemistry II } \\ \text { CHY }\end{array} 116\end{array} \begin{array}{c}\text { Principles of Chemistry II Lab } \\ \text { or }\end{array}\right]$

Choose one tools course
Suggested tools courses: ECO 102, MAT 120D, MAT 220, GEO 108, GEO
205, GEO 308
*To be taken between junior and senior years
Majors must also complete one of the following three options:
Option 1: Environmental Planning/Policy
ESP 220J Introduction to Environmental Policy
ESP 305 Community Planning Workshop
ESP 375 Environmental Risk Assessment and Management
ESP 417 Site Planning and Assessment
ESP 421W Natural Resource Policy
GEO 209 Land Use Planning
or
ESP 200 Environmental Planning
Electives:
Choose four environmental science classes 200-level or higher in accordance with program of study

Option 2: Environmental Science
CHY 231 Analytical Chemistry

CHY 232 Analytical Chemistry Lab
MAT 152D Calculus A
PHY $\quad 111 \mathrm{~K}$ Elements of Physics I and
PHY 114K Physics Lab
or

| BIO | 105 K | Biological Principles I and |
| :--- | :--- | :--- |
| BIO | 106 K | Laboratory Biology |
| ESP | 250 | Soils and Land Use |
| ESP | 360 | Water Quality Assessment and Control |
| ESP | 260 | Soil and Water Conservation Engineering |
| or |  |  |
| ESP | 412 | Field Ecosystem Ecology |
| Electives: |  |  |
| Choose four environmental science classes 200-level or higher in accordance |  |  |
| with program of study |  |  |


| Option 3: Environmental Safety and Health |  |  |
| :--- | :--- | :--- |
| ESH | 221 | Fire and Safety |
| ESH | 332 | Industrial Hygiene |
| ESH | 342 | Safety and Risk Management |
| ESH | 350 | Industrial Processes and Permitting |
| ESP | 375 | Environmental Risk Assessment and Management |
| ITP | 210 | Technical Writing |
| ITP | 280 | Industrial Organization, Management and Supervision |
| ITP | 310 | Plant Layout and Material Handling |
| ITP | 330 | Production Control |
| ITP | 490 | Cost Analysis and Control |
| ITS | 300 | Ergonomics |
| ITS | 320 | Occupational Safety and Health |
| ITS | 321 | Workplace Design Ergonomics |
| ACC | 110 | Accounting |
| ECO | 102 J | Intro to Microeconomics |
| MAT | 140 D | Pre-Calculus |
| SCI | 130 K | Biology of Human Health Lab |
| PHY | 111 K | Elements of Physics I |
| PHY | 114 K | Intro Physics Lab I |

Electives:
Choose 7 additional credits from the recommended list below in accordance with program of study. Other courses may be suggested by the student for inclusion:

| CHY | $231 / 232$ | Analytical Chemistry and Lab |
| :--- | :--- | :--- |
| ESP | 250 | Soils and Land Use |
| ESP | 260 | Soil and Water Conservation Engineering |
| ESP | 360 | Water Quality Assessment and Control |
| ITC | 100 | Introduction to Construction Management |
| ITP | 230 | Project Management |
| ITP | 340 | Fundamentals of Quality |
| ITP | 410 | Technical Operations and Strategies |
| CON | 216 | Emergency Response |

Check current catalog listing for prerequisites.
Before registering for the first semester of the junior year, all environmental science students must complete and submit a written program of study. Transfer students must complete a program of study upon admission to the program. The program of study is submitted to the environmental science faculty for approval. The program of study is intended to encourage students to tailor their academic studies based on their chosen concentration and personal interests. The program of study should be completed with the assistance of the advisor.

The program of study is a one-page document. The first section briefly describes the student's experience in the Department, including their concentration. The second section describes the student's interests (e.g., water resources, environmental compliance, and natural resources management) and likely future goals (e.g., graduate school, law school, or professional employment). The third section describes the USM and Departmental courses (at least four of the courses must be environmental science courses at the 200 level or higher) that will support the student's current interests and future goals. A key component of this section is a brief description of a possible internship (job title and location), which is generally completed during the summer following the completion of the junior year. The final section is a timeline of the courses to be taken.

After approval, the program of study may be amended with the approval of the advisor. Any significant changes, such as course substitutions, may require Departmental approval.

## Admission to the Program

Admission to the major is competitive, usually requiring grades equivalent to a B average or higher and completion of three high school laboratory science courses and advanced algebra. Transfer students and USM students wishing to change majors must meet the admission and coursework requirements for the major. The program committee may admit, on a conditional basis, students who do not meet the general admission requirements, subject to specific agreement with the student to complete a series of prerequisite science and math courses with a grade of $\mathrm{C}(75)$ or better within a specified time period.

## Certificate in Environmental Policy Analysis

The Department of Environmental Science offers a certificate in environmental policy analysis, designed for students and professionals in area industry, consulting, government, and non-governmental organizations. The certificate is designed to develop an individual's skills in identifying environmental policy problems, formulating policy solutions, and evaluating policies.

Candidates must apply to the chairperson of the Department of Environmental Science, be assigned an advisor, and have their course of study approved by the Department chairperson.

The certificate is awarded after the successful completion of 21 credit hours of study. The requirements for the certificate are successful completion of the following courses:

| ESP | 203 W | Environmental Communication |
| :--- | :--- | :--- |
| ESP | 220 J | Introduction to Environmental Policy |
| ESP | 375 | Environmental Risk Assessment and Management |
| ESH | 341 | Environmental Regulations |
| ESP | 421 W | Natural Resource Policy |

Students also must select two courses from the following:

| ESP | 275 | Energy Use and Societal Adaptation |
| :--- | :--- | :--- |
| ESP | 326 | Environmental Economics |
| ESP | 475 | Topics in Environmental Science/Senior Seminar |
| ESP | 212 | Environmental Ethics |
| POS | 365 | Environmental Politics and Policy |
| POS | 375 | International Environmental Politics and Policy |
| POS | 453 | Politics of American Policy Making |

## Soil and Wetland Certificate

This certificate program is designed to prepare individuals to be wetland delineators; site evaluators; to gain 15 credit hours in soils necessary to apply for an NRCS soil conservationist position; or to take the ARCPACS or soil certification exam

The certificate is open to undergraduates and graduates in USM degree programs, and for environmental scientists, biologists, geologists, hydrologists, landscape architects, planners, plumbing and code enforcement officers, and engineers who would like to increase their knowledge of soils and jurisdictional wetlands.

The curriculum includes classes in soils, wetland ecology, erosion and sediment control, storm water management, and wetland delineation. A certificate will be presented to students completing the 18 -hour program. Upon approval by the Department chair, up to 8 prior credits may be applied toward the certification program. A grade of C - or better is required for all courses applied toward the certification. The requirements for the certificate are successful completion of the following courses:

| Required: |  |  |
| :---: | :--- | :--- |
| ESP | 250 | Soils and Land Use |
| ESP | 255 | Soil Morphology and Classification |
| ESP | 260 | Soil and Water Conservation Engineering |
| ESP | 303 | Wetland Ecology |
| ESP | 350 | Wetland Delineation |
| Electives: |  |  |
| ESP | 341 | Limnology |
| ESP | 403 | Bioremediation and Phytoremediation |
| ESP | 417 | Site Planning and Assessment |

## Certificate in Environmental Safety and Health

This certificate program is designed for supervisors responsible for environmental safety and health activities, persons having compliance responsibilities in their jobs, insurance company personnel, "jack-of-all-trades" employees in remote locations, technicians involved with these issues, and others who wish to enhance their work effectiveness and promotion options.

The certificate is awarded after the successful completion of six courses ( 18 credit hours) selected from those listed below. Three of the courses should be primarily "environmental" and three should be primarily "health and safety" in nature.

| ESH | 331 | Applied Toxicology |
| :--- | :--- | :--- |
| ESH | 332 | Industrial Hygiene |
| ESH | 341 | Environmental Regulations |
| ESH | 342 | Safety and Risk Management |
| ESH | 350 | Industrial Processes and Permitting |
| ESP | 125 K | Introduction to Environmental Ecology |
| ESP | 203 W | Environmental Communication |
| ESP | 250 | Soils and Land Use |
| ESP | 280 | Research and Analytical Methods |
| ESP | 360 | Water Quality Assessment and Control |
| ESP | 375 | Environmental Risk Assessment |
| GEY | 207 | Atmospheric Science and Pollution |
| ITS | 300 | Ergonomics/Time Study |
| ITS | 320 | Occupational Safety and Health |
| ESP | 212 | Environmental Ethics |

Up to three other environmental safety and health courses approved by the USM environmental science faculty may be earned at other institutions. For example, courses offered through other partners in the University of Maine System, courses offered through the Maine Community College System, or courses offered through another regionally accredited institution of higher learning.

For more information about the certificate program, contact the chair in the Department of Environmental Science.

## Certificate in Environmental Education

This certificate is designed for teachers, scientists, public officials, consultants, field naturalists, environmental interpreters, and others having responsibility for educating or informing people about the environment. The certificate is awarded after the successful completion of 18 credit hours of study selected from the courses listed below. Candidates must apply to the chairperson of the Environmental Science Department, be assigned an advisor, and have their course of study approved by the Department chairperson. Up to 8 prior credits may be applied toward the certificate program.

Required:
ESP 445/
EPB 545 Environmental Education and Interpretation
ESP 400 Internship (with an environmental education/interpretation host)
At least one of the following is required:

| EPA | 530 | Science of Maine Forests |
| :--- | :--- | :--- |
| EPA | 542 | Environmental Science Concepts and Strategies for <br>  <br> Middle School Teachers |
| EPB | 525 | Science Content for Elementary School Teachers |
| HRD | 339 | Adult Learning and Development |
| Choose from below to complete the credit requirements: |  |  |
| ESH | 341 | Environmental Regulations |
| ESP | 101 K | Fundamentals of Environmental Science |
| ESP | 102 K | Fundamentals of Environmental Science Laboratory |
| ESP | 110 | Introduction to Nature Tourism |
| ESP | 125 K | Introduction to Environmental Ecology |
| ESP | 126 K | Introduction to Environmental Ecology Laboratory |
| ESP | 150 | Environmental Science Field Immersion Session |
| ESP | 203 W | Environmental Communication |
| ESP | 250 | Soils and Land Use |
| ESP | 280 | Research and Analytical Methods |
| ESP | 303 | Wetlands Ecology |
| ESP | 308 | Global Environmental Problems and Sustainability |
| ESP | 341 | Limnology |
| ESP | 411 | Methods of Field Analysis |
| ESP | 413 | Forest Ecology |

## Minor in Environmental Science

Students who want to minor in environmental science and policy must complete 18 credits of environmental science courses with a grade of C - or higher. Students may transfer up to three (3) credits of comparable environmental science courses from other institutions. All students must complete ESP 101K, 102K, ESP 203, and collaborate with a Departmental faculty member to develop an individual course of study.

## Minor in Environmental Sustainability

The Department of Environmental Science offers a 19-credit minor in environmental sustainability for students in any non-DES major. There is growing realization that the human population must strive to live in a sustainable relationship with Earth's finite resources. The goal of the minor is to provide broad, interdisciplinary training related to the problem of global environmental problems. Students in the environmental sustainability minor also examine the scientific, cultural, economic, and policy aspects of sustainability and are provided skills in how to recognize and overcome barriers to sustainability.

Required Courses

Focused Study Courses
Select two 200-level (or above) ESP courses approved by your DES advisor (may include a research practicum, ESP 450)

All courses taken to satisfy the requirements for a minor in environmental sustainability must be completed with a grade of C - or better.

## Minor in Nature Tourism

The 18 -credit nature tourism minor is jointly offered by the Department of Recreation and Leisure Studies, College of Nursing and Health Professions, and the Department of Environmental Science, School of Applied Science, Engineering, and Technology. For details about the minor, course requirements, and course descriptions visit the catalog section for Department of Recreation and Leisure Studies, College of Nursing and Health Professions.

## ESH 221 Fire Safety

This course is an overview of fire system safety for the safety professional. Topics include the Life Safety Code, fundamentals of fire protection systems, chemical fire safety, requirements of the Occupational Safety and Health Administration concerning fire, and use of references and codes. Cr 3 .

## ESH 331 Applied Toxicology

This course introduces students pursuing careers in environmental science, engineering, and safety to the basics of organic chemistry and the basics of toxicology. Organic chemistry emphasis includes prevalence, identification, and nomenclature. Toxicology concepts include dose-response, target organs, and biological mechanisms. Principles of toxicology will be introduced using organic chemical examples as possible. Emphasis is on how to use, understand, and interpret readily available public information in the toxicology literature. Prerequisites: ESP 101K and 102 K , ITP 320 or ITS 320 , CHY $113 \mathrm{~K} / 114 \mathrm{~K}$ or permission of the instructor.

Cr 3.

## ESH 332 Industrial Hygiene

This course will cover the general concepts and principles of industrial hygiene with direct application to workplace environments. Direct topic coverage will include: common health hazards, air contaminates, biological hazards, an introduction to air quality, noise, respiratory control, ventilation, hygiene sampling equipment/techniques, OSHA, and related standards. Prerequisites: CHY 113 K and 114Kor equivalent, and MAT 140D. Cr 3.

## ESH 341 Environmental Regulations

This course is an intensive introduction to the federal and Maine environmental regulatory structure. This course is designed to provide basic competency in the knowledge and application in the environmental and health and safety fields. Topics include air, surface water, drinking water, worker protection, spill reporting, hazardous waste, and Superfund. Prerequisites: ESP 101K/102K and ESP 203W or permission.

Cr 3.

## ESH 342 Safety and Risk Management

This course is about the risk management process for industrial and commercial safety. Students will learn how to analyze the exposures to accidental losses facing individuals and organizations; describe, analyze, and apply alternative risk management techniques; and apply practical analysis of loss management. This class contains a unit on Process Safety Hazard Analysis. This course is equivalent to the prior offerings of ITS 342 Loss Control Management, and is required of environmental science students choosing the environmental safety and health option. Business majors should inquire of their advisors if this course can fulfill specific degree requirements. Prerequisites: ESP $101 \mathrm{~K} / 102 \mathrm{~K}$, CHY $113 \mathrm{~K} / 114 \mathrm{~K}$, ITP 320 or ITS 320 or instructor permission.

Cr 3 .

ESH 350 Industrial Processes and Permitting
This class addresses issues of industrial waste control, including manufacturing processes and resultant air pollutants, water pollutants, and hazardous waste generation. Emphasis is on environmental permitting. Prerequisites: ESP 101K/102K, CHY 113K/114K, ESH 341 . Cr 3.

## ESH 430 Environmental Practicum

The course places the senior-level student in the workplace for the purpose of completing his/her study of environmental principles. The opportunity to apply the materials covered in environmental policies, basic toxicology, industrial hygiene, and environmental air quality now can be put into practice. Students will be placed at various work site locations and will be assigned an environmental project within that site. To be included in the project are problem identification, hazard analysis, and problematic corrective actions. Each student practicum will be assigned a faculty advisor. Prerequisite: ES\&H/advisor permission.

Cr 3.

## ESP 101K Fundamentals of Environmental Science

This course is an examination of the science of environmental problems, processes, and solutions. Students will explore the interrelationships of the natural world, the environment, and impacts from humans. Specific topics will include land, air, and water pollution; biodiversity; global climate change; energy; public health; and sustainability. Prerequisites: successful completion of the University's writing and mathematics proficiency requirements. Corequisite: ESP 102K. Cr 3.

## ESP 102K Fundamentals of Environmental Science Laboratory

This laboratory course is designed to provide applied experience with some of the tools and techniques used in environmental science. Students will examine a variety of environmental issues using field kits, lab equipment, and computers. Prerequisites: successful completion of the University's writing and mathematics proficiency requirements. Corequisite: ESP 101K. Cr 1.

## ESP 108/GEO 108 Introduction to ArcGIS

An introduction to Geographic Information Systems (GIS), stressing the practical applications of popular graphical user interface (GUI) software packages such as ArcView. Topics covered include displaying, downloading, editing, analyzing, and printing public domain and user-created geographical data sets. The main emphasis of the course is on the acquisition of system operations skills. Cr 3.

## ESP 110 Introduction to Nature Tourism

This course covers the basics of nature tourism - a fast-growing, broad category that covers ecotourism and adventure tourism. An emphasis is placed on a variety of tourist activities and programs involving the outdoors in Maine and northern New England.

ESP 110 is a required course for a minor in nature tourism.

Cr 3.

## ESP/FTY 111 Forest through Time

Basic concepts of science will be used to explain how forests have responded to natural and human influences over time. This foundation will be used to explore how a range of uses affect the future sustainability of forest systems and their ability to meet society's needs. This is a Web-based course. Cr 1.

ESP/FTY 112 Forest through Time: Discussions
Weekly discussions based on information presented in ESP/FTY 111 Forest through Time. (Course utilizes video conferencing). Prerequisite or co-requisite: ESP/FTY 111.

Cr 2.

## ESP 125K Introduction to Environmental Ecology

This is an introduction to the study of the interactions between organisms and their environments. Students will study the basic principles of ecology and systems and study specific ecosystems including forests, wildlife, freshwater, marine, urban, and humans. Prerequisites: successful completion of the University's writing and mathematics proficiency requirements. Prerequisites: ESP $101 \mathrm{~K} / 102 \mathrm{~K}$ or BIO 105K/106K. Corequisite: ESP 126K. Cr 3.

## ESP 126K Introduction to Environmental Ecology Laboratory

This laboratory course surveys the identification, measurement, and function of various ecosystems. A focus will be on the impact of human activity on ecosystems. Prerequisites: successful completion of the University's writing and mathematics proficiency requirements. Prerequisites: ESP $101 \mathrm{~K} / 102 \mathrm{~K}$ or BIO $105 \mathrm{~K} / 106 \mathrm{~K}$. Corequisite: ESP 125 K . Cr 1.

## ESP 150 Environmental Science Field Immersion Session

This field immersion session is designed to teach basic natural science field skills and build community in a long weekend format. The course includes components on forest, soil, aquatic, wildlife, and urban systems. Basic orienteering and map reading, topographical surveying, global positioning system operation, aerial photo interpretation, and dichotomous key use are emphasized. This required course is intended for students between the first and second year of the environmental science major. Students must be present for the entire immersion session.

Cr 3.

## ESP 200 Environmental Planning

This course introduces the central concepts of environmental planning theory and practice, including components of rural, regional, and community planning. Concepts and issues studied include planning history and regulations, natural resources inventory, spatial patterns and analysis, zoning techniques, growth management, and planning research. The course is a prerequisite for ESP 305 Community Planning Workshop. Prerequisite: ESP $101 \mathrm{~K} / 102 \mathrm{~K}$ or permission.

Cr 3.

## ESP 203W Environmental Communication

Students study environmental communication to understand the influence of socio-economic, political, and scientific factors in the social construction of environmental problems. Topics include basic communication theory and its application to the perception and communication of risk, how communication is used to persuade/dissuade the public regarding environment problems, and how the environment is used to manipulate consumer behavior. Students also will explore the basics of social science research and its application to environmental communication. Prerequisites: ESP 101K and ESP 102 K , sophomore standing, or permission. Cr 3.

## ESP 212/PHI 212 Environmental Ethics

This course analyzes the relations between human beings and the environment in terms of the concepts of justice, the good, and human responsibilities. It attempts to provide a new cosmological model for adjudicating between conflicting rights and duties. Issues to be discussed include animal rights, environmental protection, and ecological harmony. Prerequisite: any PHI 100-level course. Cr 3.

## ESP 220J Introduction to Environmental Policy

This course is an intensive introduction to the field of applied environmental policy. The course will focus on the policy process, including environmental problem identification, solution analysis, analysis and use of environmental policy tools, decision making, and policy implementation. Particular emphasis is given to air and water pollution and solid waste management. Prerequisites: ESP 101 K and ESP 102 K , ESP 203 W , or permission of instructor.

Cr 3 .

## ESP 250 Soils and Land Use

Study and description of soils as natural materials in the landscape. The course includes an examination of physical, chemical, and biological properties of soils as they affect soil-plant-water relations. Other topics include soil classification and suitability for agriculture, urban development, and contaminant remediation. Laboratory exercises include field examinations of soils and physical and chemical soil analyses. Prerequisites: ESP 101K, ESP 102K, and CHY 113 K and 114 K or permission. Cr 4

## ESP 260 Soil and Water Conservation Engineering

A study of the utilization, improvement, and protection of two essential resources-soil and water. Primary focus is on applying scientific and engineering principles to the problem areas of soil erosion and flood control. Students will design practical solutions to remediate these problems. Prerequisite: math proficiency. Cr 3.

## ESP 275 Energy Use and Societal Adaptation

This course focuses on the topic of energy, its utility, its use, and its impact on society and the environment. Subjects to be explored include: 1) traditional, modern and future energy resources; 2) energy
consumption; 3) energy technologies; 4) energy and the environment and 5) sustainable development. The class will consist of a combination of lectures and seminars using a variety of media, including textbooks, technical articles, print, and video. Prerequisites: ESP 101K/ESP 102K. Cr 3.

## ESP 280 Research and Analytical Methods

A focus on analytical and research techniques for environmental science and policy. The course is centered on the use of instrumentation and investigative research to address a thematic environmental issue. Topics include defining research problems, experiment design, measurement, sampling, and analysis. Students will complete group research projects. Prerequisites: ESP 203W and CHY $113 \mathrm{~K} / 114 \mathrm{~K}$.

Cr 4.

## ESP 303 Wetlands Ecology

This lecture course examines wetlands from the perspectives of science and policy. Topics will include wetland definitions, classification, and regional and national trends in habitat destruction and management. Prerequisites: ESP 101K/ESP 102K, CHY 113K/CHY 114K.

Cr 3.

## ESP 305 Community Planning Workshop

This online course provides a practical approach to local community planning problems. Students will conduct field work to explore community decisionmaking processes regarding the use of natural, social and economic resources. Basic planning concepts are refined and applied to real-world problems in a collaborative manner. Prerequisites: ESP 101K, ESP 102 K , and GEO 209 or ESP 200, or permission.

Cr 3.

## ESP 308 Global Environmental Problems and Sustainability

An examination of global environmental problems including climate change, ozone depletion, hydrologic changes, deforestation, and desertification. The latter half of the course will focus on the application of sustainability to solve these problems. Prerequisites: ESP $101 \mathrm{~K} / \mathrm{ESP} 102 \mathrm{~K}$, ESP $125 \mathrm{~K} / \mathrm{ESP} 126 \mathrm{~K}$, or permission of instructor. Cr 3.

## ESP 313 Renewable Energy Technologies

This course will equip students with a thorough knowledge of renewable energy systems (including solar, wind, geothermal, and biomass), their underlying physical and technological principles, their environmental impact, their economics, and how they can be integrated into current energy infrastructures. Prerequisites: CHY 113/114, ESP 101K/ESP 102 K or permission of instructor.

Cr 3.

## ESP 326/ECO 326 Environmental Economics

This course considers the economic aspects of resource and environmental issues, such as pollution, the use and management of natural resources, environmental justice, and global climate change. In addressing each of these issues we will investigate
the implications of various public policy responses such as regulation, marketable permits, and tax incentives. Prerequisite: ECO 102J or instructor permission.

Cr 3.

## ESP 341 Limnology

The study of inland waters with emphasis on the identification and ecology of aquatic organisms. This course meets on Fridays to allow time for extended field trips to local streams and lakes. Students will conduct independent research projects as part of the course. Prerequisites: BIO 107 or ESP $101 \mathrm{~K} / \mathrm{ESP} 102 \mathrm{~K}$ or ESP $125 \mathrm{~K} / \mathrm{ESP} 126 \mathrm{~K}$, and CHY 115 or permission of instructor.Cr 5.

ESP 360 Water Quality Assessment and Control A study of water-related legislation, methods for determining compliance with statutes, and control methods used for water quality attainment. Regional topics addressed include: waste-water treatment, drinking water standards, storm water runoff, lake eutrophication, best management practices, and biomonitoring for water quality assessment. Three hours of lecture and three hours of lab per week. Prerequisites: BIO $105 \mathrm{~K} / 106 \mathrm{~K}$ and CHY $113 \mathrm{~K} / 114 \mathrm{~K}$ and a statistics course or permission. Cr 4.

## ESP 375 Environmental Risk Assessment and Management

The focus of this course is to provide students with a competency in quantitative human health risk assessment-an organized, multidisciplinary approach to evaluating scientific data by studying basic toxicology and fate and transport of contaminants using generally accepted principles and terminology used in the field. Students will examine the limitations of current risk assessment methods and be introduced to the basics of public and community health. Finally, students will study the scientific, political, social, ethical, and economic dimensions of managing risks. Prerequisites: ESP 101 K and 102 K , ESP 203W, or permission of instructor. Cr 3.

## ESP 380 Special Topics in Environmental Science

This course covers two topics of contemporary interest in ecology and public policy, offered spring semester in alternating years. Topics are: (1) earth systems and climate change (offered in even-numbered years), and (2) biodiversity and conservation (odd-numbered years). The course on earth systems takes a bio-geo-chemical approach to the planetary history of earth and the evolution and adaptations of life. The course ends with a consideration of climate change drivers and models and anticipated forcing of climate change on the biosphere. The course on biodiversity begins with a brief tour through evolutionary time and the major radiations and extinctions that produced the world that we have inherited. The course ends with a consideration of human welfare and management in the context of these ecological processes. The course is based on textbook material, readings of the primary scientific literature, and
round-table class discussions. Prerequisites: undergraduate students: ESP 101 K, BIO 101 K or equivalent intro biology and ecology, or permission of the instructor. Upperclass standing strongly recommended. Graduate students automatically qualify. Class meets 2-1/2 hours once a week. Cr 3.

## ESP 400 Internship

The internship provides professional experience related to a student's chosen option within the major. The emphasis is on understanding the host organization's structure and function within the environmental area. In addition to satisfactory work experience, an oral presentation and written report are required. Offered as pass/fail only. Intended to be taken between the junior and senior year. Prerequisites: sophomore standing or higher, faculty approval of host organization, work plan, and completed "internship application" form.

Cr 3.

## ESP 401W Environmental Impact Assessment and Lab

An overview of methods used to analyze the environmental impact of human decisions. The course will emphasize U.S. requirements for impact assessment as outlined in NEPA. Federal documents (DEIS, EIA, EIS, FONSI, and ROD) filed for past and on-going projects are reviewed. A laboratory session is taken concurrently and is writing-intensive. Focus is on the application of assessment procedures to a thematic environmental issue. Prerequisite: ESP 280 or permission.

Cr 4 .

## ESP 403 Bioremediation and Phytoremediation

A study of the interaction of soils and groundwater with organic and synthetic contaminants, and the role of soils in pollution control. Students investigate the physical, chemical, and microbiological properties of soil and water and compare conventional remediation with bioremediation techniques. Special emphasis is placed on regional pollution problems including agricultural runoff, landfill leachates, and leaking underground storage tanks. Prerequisites: ESP 101 K, ESP 102 K , CHY $113 \mathrm{~K} / 114 \mathrm{~K}$, and ESP 250 , or permission. Cr 3.

## ESP 411 Methods of Field Analysis

This lecture/lab/field course investigates ecological issues using descriptive field techniques, hypothesis testing, computer analysis and journal article interpretation. This course is writing-intensive. Prerequisite: MAT 120D or ESP 290D. Cr 4.

## ESP 412 Field Ecosystem Ecology

This course provides a fundamental understanding of ecosystem ecology, with an emphasis on forested and aquatic ecosystems and impacts of the physical and chemical environment on ecosystem functioning. The course is writing intensive and includes hypothesis generation, field research, computer analysis, and journal article interpretation and writing. The laboratory is field intensive and includes local field trips, team research exercises, and independent field
research projects. Prerequisites: MAT 120D and ESP 125K/ESP 126K, or permission. Cr 5.

## ESP 413 Forest Ecology

This course provides students with an understanding of what constitutes a healthy forest ecosystem and a sustainable forest environment. Special emphasis is placed on the function, spatial variability, evolution of forest ecosystems, and the need for forest ecology as the foundation of forest management. The laboratory session is field intensive. Prerequisites: ESP $125 \mathrm{~K} / 126 \mathrm{~K}$ or permission. Cr 4.

## ESP 417 Site Planning and Assessment

An introduction to environmental planning and assessment concepts and skills associated with the development of sites for human use. Emphasis is given to the development of particular tracts or parcels of land in Maine. Prerequisites: ESP/GEO 108 or GEO 308 and GEO 209 or ESP 200, or permission of instructor.

Cr 3.

## ESP 421W Natural Resource Policy

Examination of natural resource policies and evaluation procedures used by natural resource decision makers. Case studies focus on topics such as forest health protection, the Endangered Species Act, the Maine Environmental Priorities Project, transboundary ecosystems, and estuarine areas. Emphasis on natural resource policy processes, conflict resolution through consensus building, and stakeholder involvement. Prerequisite: ESP 220J.

Cr 3.

## ESP 445 Environmental Education and Interpretation

Students explore the basics of classroom and nonformal environmental science education and interpretation using an inquiry-based approach. Topics include teaching ecosystem and environmental science principles, selecting and designing environmental curricula, and applying the Maine Learning Results to environmental education. Prerequisite: 12 credits of science or permission.

Cr 3 .

## ESP 450 Research Practicum

Organized research experiences in ongoing faculty research projects or a mutually arranged special topic involving substantial skills development. Research will be conducted under the direct supervision of the faculty member. Permission of instructor required in semester prior to registration. May be repeated for a maximum of 6 credits. Cr 1-3.

## ESP 475 Topics in Environmental <br> Science/Senior Seminar

Topics in environmental science not regularly covered in other courses. The content will vary based on current local and regional environmental issues. The course also includes resume and cover letter writing and practice of interview skills. The course may, with permission of Department, be taken more than once. Prerequisite: ESP 401W or permission. Cr 3.

# Department of Technology 

Chair of the Department: William H. Moore, John Mitchell Center, Gorham<br>Professor: Anderson; Associate Professors: Bazinet, Early, Marshall, Moore, Wilson, Zaner

Studies in technology focus on systems application wherein systems are composed of tools, equipment, machines and materials, methods/techniques, and people. Key to the successful implementation/application of systems are the many relationships and interactions among people, technology, and society. In these studies, technology and related concepts are presented in a manner that emphasizes a "hands on" or "applied" approach encompassing classroom interaction, laboratory activities, field experiences, engagement with local industry, and opportunities for internships/cooperative education.

Curriculum offered by the Department of Technology (DOT) provides a blend of academic, technical, and professional courses designed to prepare individuals for careers in leadership positions in business/industry. Several programs leading to a bachelor of science (B.S.) degree are offered:
B.S. Industrial Technology (INT) with concentrations in industrial management, precision manufacturing, information and communications technology, construction management, and electro-mechanical systems.
B.S. Applied Technical Leadership (ATL)

Each B.S. degree program is designed to meet the educational needs of students with a variety of academic backgrounds, employment experience, and career aspirations. Due to the similarities in curriculum and the rules for counting credit toward a degree program, students cannot complete both the applied technical leadership (ATL) and industrial technology (INT) degrees. Accordingly, there are two "paths of entry" into the B.S. in industrial technology program: 1) for traditional students, i.e., students who have no substantive "technically- related" college credit, or 2) for transfer students and nontraditional students, i.e., students who have completed col-lege-level work that qualifies for transfer into USM. Nontraditional students are typically adult learners who seek some level of college credit based on a mix of prior college credit, work experience, and/or industrial training.

The B.S. in the applied technical leadership program is designed only for transfer and nontraditional students.

## Industrial Technology

Industrial technologists are technically oriented management professionals who plan, direct, organize, and control industrial production and/or service delivery operations. Graduates of the degree program are prepared academically to assume leadership positions in a wide variety of organizations.

## Industrial Management Concentration

This concentration is designed to prepare graduates for career leadership and management positions in a technical environment. Students in this concentration take courses intended to help students understand the many different organizational elements and functions composing industrial operations. Students completing this program will develop a broad-based, cross-sectional/functional understanding as a "generalist" management professional.

## Precision Manufacturing Concentration

This concentration is designed to prepare graduates for career leadership and management positions in a computer-intensive/automated manufacturing environment. Students in this concentration take courses with specialized technical application in the area of computer-aided design/manufacturing, computer-numeric-control programming (CNC), industrial robotics, automated material handling, electronic control technology, computer-integrated manufacturing, rapid prototyping, and systems integration. This concentration is also available to nontraditional and transfer students with enough related technical experience or coursework to satisfy the technical competency requirements of the concentration or to students with an associate's degree in a metal working area. Students com-
pleting this program will develop a focused understanding of manufacturing operations as a "specialist" managerially oriented professional.

## Information and Communications Technology Concentration

This concentration is designed to prepare graduates for career leadership and management positions in a computer applications-oriented environment integral to modern business and industry. Students in this concentration take courses that emphasize theory and application relating to the management and operation of computer and technical systems used for communications, information management, control technology, and publishing. Students completing this program will develop a focused understanding of computer applications-based and data/infor-mation-intensive operations. Students completing this program may elect also to complete minors in computer science, business administration, economics, or information management.

## Construction Management Concentration

This concentration is designed to prepare graduates for advancement opportunities in construction-related industries primarily as site managers, superintendents, project managers, directors of operations, and construction managers. Students in this concentration take courses that emphasize theories and applications of planning, managing, directing, organizing, and controlling construction operations. This concentration is available only to nontraditional and transfer students with enough related technical experience or coursework to satisfy the technical competency requirements of the concentration. To satisfy the technical competency requirements, nontraditional students must complete a portfolio assessment based on the state of Maine standards for secondary vocational education (construction-related trades). To satisfy the technical competency requirements, transfer students must complete a construction-related associate's degree program from a regionally accredited community or technical college ( $2+2$ articulation agreements are currently in place with Central and Southern Maine Community Colleges).

## Electro-Mechanical Systems Concentration

This concentration is designed to prepare graduates for career leadership and management positions in computer-controlled/automated, equipment-intensive environments. Students in this concentration take courses that emphasize theory and application relating to the design, control, and integration of electrical, mechanical, hydraulic, and pneumatic components and assemblies. This concentration is available only to nontraditional and transfer students with enough related technical experience or coursework to satisfy the technical competency requirements of the concentration or to students with an associate's degree in an electricity/electronic, mechanical or computer related area. Students completing this program will develop a focused understanding of power and control systems utilized in industrial, environmental, construction, transportation, and military sectors.

## Applied Technical Leadership (ATL)

This degree program is designed to provide career advancement opportunities for personnel employed in a variety of technically oriented career fields such as fire science, law enforcement, medical technology, business process operations, and service industries. Students eligible to enter this program are expected to have gained selected technical and managerial competencies via the completion of an associate of science degree in an appropriate field, industrial/military training, occupational experience, or through a combination of the above. Prior learning assessment and/or review of college transcripts will be the primary means for verification of competency attainment. Students in this degree program will develop the knowledge, skills, and abilities needed to advance into managerially oriented positions.

Areas of Minor Study

Four areas of study in the Department of Technology are available as minors: information and communications technology, industrial management, precision manufacturing, and electro mechanical systems. Each minor consists of a minimum of 18 credit hours approved and monitored by a faculty advisor in the Department. The student must declare the minor. The courses used for each minor will be select-

## Admission Requirements (All Programs)

## Laboratory Fees

ed from those approved and/or required for that minor by the Department faculty. Admission to the minor will require the completion of at least 24 credits with a grade point average of 2.0. Successful completion of the minor will require a grade point average of 2.0 in the courses making up the minor.

Students must meet all University of Southern Maine admission requirements.
The Department of Technology has approved transfer pathways from many of Maine's community colleges and regionally accredited community or technical colleges. The purpose of these pathways is to allow individuals with specific associate's degrees to complete a bachelor of science degree with a focus in areas such as: industrial management, electro-mechanical systems, precision manufacturing, information and communications technology, and construction management.

All students must meet University Core curriculum requirements and additional Departmental requirements. Specific requirements for bachelor of science degree programs offered through the Department of Technology are indicated in the following tables. A minimum of 15 credit hours or 5 courses must be taken in the Department.

Students in the industrial technology degree program will be required to complete a senior assessment as part of the graduation requirement.

## Industrial Technology

Bachelor of science in industrial technology (INT)
Concentrations:

- Industrial management - 127 credits
- Precision manufacturing - 127 credits
- Information and communications technology - 127 credits
- Construction management - 127 credits
- Electro-mechanical systems - 127 credits


## Applied Technical Leadership

Bachelor of science in applied technical leadership - 121 credits

## Internship

The Department of Technology, recognizing the value of integrating theory and practice through application in actual work environments, encourages internships for qualified majors. An internship provides a wide range of opportunities for applying knowledge and skills obtained in a classroom or laboratory to actual work situations.

An internship is an option that qualified students may pursue as an integral component of their degree program. It provides an opportunity to participate in a supervised program relevant to the student's major.

Permission of the instructor is needed to register for an internship.
Laboratory fees to cover the cost of materials and supplies are assessed to ITT courses and selected ITS courses.

> Bachelor of Science in Industrial Technology with a concentration in Industrial Management (for traditional students)
> The minimum number of credits required for the degree: 127

University Requirements
A - Writing Proficiency
B - Math Proficiency
W - Writing-Intensive
Core Curriculum - 31 Credits
C - ENG 100C English Competency
D - MAT 140D Pre-Calculus (or above)
E - Reasoning
Fine Arts - 6 Credits (Different Depts.)
F - Performance Centered
G - History Centered
Humanities - 6 Credits (Different Prefixes)
H - Literature
I - Times Culture
Social Sciences - 6 Credits (Different Depts.)
J - Economics
J -

Natural Sciences - 4 Credits (With Lab)
K - Physics
Writing Intensive - 3 Credits
W - ITP 210 Technical Writing
Departmental Requirements - 18 Credits
MAT 148D Applied Calculus Statistics
EYE 112 The Built Environment
ITT 181 Intro to Computers Physics OR Chemistry
ITT $460 \quad$ Capstone
General Elective - 6 Credits
(Academic, Professional or Technical)

Professional - 36 Credits
ITP 230 Project Management
ITP 280 Industrial Org., Mgt., and Supr.
ITP 310 Plant Layout \& Material Hand.
ITP 330 Production Control
ITP 340 Fundamentals of Quality
ITP 350 Teambuilding and Facilitation
ITP 381 Human Resource Dev./Ind.
ITP 410 Technical Ops. and Strategies
ITP 490 Cost Analysis \& Control
ITS 300 Ergonomics/Time Study
ITS 320 Occupational Safety and Health
ACC 110 Financial Accounting Information for Decision Making

Technical-33 Credits
Required - 30 Credits
ITT 103 Materials Property and Testing
ITT 221 Power and Energy Processing
ITT 231 Technical Graphics
ITT 241 Graphic Communications
ITT 252 Material Processing
ITT 282 Computer Aided Design
ITT 323 Fluid Power
ITT 353 Automated Mat. Processing
ITT 425 Applied Process Control
Engineering
ITT 440 Internship
Technical Electives - 3 Credits
ITT Designated Courses

## Bachelor of Science in Industrial Technology

 with a concentration in Industrial Management (for nontraditional/transfer students)The minimum number of credits required for the degree: 127

University Requirements
A - Writing Proficiency
B - Math Proficiency
W - Writing-Intensive
Core Curriculum - 31 Credits
C - ENG 100C English Competency
D - MAT 140D Pre-Calculus (or above)
E - Reasoning
Fine Arts - 6 Credits (Different Depts.)
F - Performance Centered
G - History Centered
Humanities - 6 Credits (Different Prefixes)
H - Literature
I - Times Culture
Social Sciences - 6 Credits (Different Depts.)
J - Economics
J -
Natural Sciences - 4 Credits (With Lab)
K - Physics
Writing Intensive - 3 Credits
W - ITP 210 Technical Writing
Departmental Requirements - 15 Credits
MAT 148D Applied Calculus Statistics
ITT 181 Intro to Computers
Physics OR Chemistry
ITT $460 \quad$ Capstone
General Elective - 6 Credits
(Academic, Professional or Technical)

Professional - 36 Credits
ITP 230 Project Management
ITP 280 Industrial Org., Mgt., \& Supr.
ITP 310 Plant Layout \& Material Hand.
ITP 330 Production Control
ITP 340 Fundamentals of Quality
ITP 350 Teambuilding and Facilitation
ITP 381 Human Resource Dev./Ind.
ITP 410 Technical Ops. andStrategies
ITP 490 Cost Analysis \& Control
ITS 300 Ergonomics/Time Study
ITS 320 Occupational Safety \& Health
ACC 110 Financial Accounting Information for

Decision Making
Technical Required- 36 Credits
Technical Communications (9 Credits)
Technical Graphics
Graphic Communications
Computer Aided Design
Materials and Processes (9 Credits)
Materials Properties and Testing
Material Processes
Automated Material Processing
Electro-Mechanical (9 Credits)
Power and Energy Processing
Fluid Power
Applied Process Control Engineering
Advanced Automation (9 Credits)
Applied Automation Engineering
Advanced Computer Aided Design (CAM/RP)
Computer Integrated Manufacturing Systems
ITT 400 Occupational Competency
an associate's degree from an accredited institution with Department approval.

University Requirements
A - Writing Proficiency
B - Math Proficiency
W - Writing-Intensive

Core Curriculum - 31 Credits
C - ENG 100C English Competency
D - MAT 140D Pre-Calculus (or above)
E - Reasoning

Fine Arts - 6 Credits (Different Depts.)
F - Performance Centered
G - History Centered

Humanities - 6 Credits (Different Prefixes)
H - Literature
I - Times Culture

Social Sciences - 6 Credits (Different Depts.)
J - Economics
J -

Natural Sciences - 4 Credits (With Lab)
K - Physics or Chemistry

Writing Intensive - 3 Credits
W - ITP 210 Technical Writing

Departmental Requirements - 18 Credits
MAT 148D Applied Calculus
Statistics
Computer Programming
BUS 345 Information
Technology/MIS
Science
ITT $460 \quad$ Capstone
General Elective - 6 Credits
(Academic, Professional or Technical)

Professional-27 Credits
Required - 15 Credits
ITP 230 Project Management
ITP 280 Industrial Org., Mgt., \& Supr.
ITP 350 Teambuilding and Facilitation
ITP 381 Human Resource Dev./Ind.
ITS 300 Ergonomics/Time Study

Professional Electives - 12 credits from approved ITP courses or students completing an approved minor may use courses in their minor as professional electives if they are not required courses in the INT program or otherwise used to fulfill INT degree requirements.
Courses may not be used to fulfill more than one requirement on the degree worksheet. You may satisfy the minimum number of credits by taking one of the approved minors listed below:
Computer Science
Economics
Business Administration
Information Management

Technical - 42 Credits
Required - 24 Credits
EYE 112 The Built Environment
ITT 181 Introduction to Computers
ITT 241 Graphic Communications
ITT 272 Intro to Computer Networking
ITT 281 Internet Web Site Dev.
ITT 282 Computer Aided Design
ITT 311 Telecommunications
ITT 343 Desktop Pub. \& Design
Technical Electives - 18 Credits
ITT Designated Courses

> Bachelor of Science in Industrial Technology
> with a concentration in Precision Manufacturing
> The minimum number of credits required for the degree: 127

University Requirements
A - Writing Proficiency
B - Math Proficiency
W - Writing-Intensive
Core Curriculum - 31 Credits
C - ENG 100C English Competency
D - MAT 140D Pre-Calculus (or above)
E - Reasoning
Fine Arts - 6 Credits (Different Depts.)
F - Performance Centered
G - History Centered
Humanities - 6 Credits (Different Prefixes)
H - Literature
I - Times Culture
Social Sciences - 6 Credits (Different Depts.)
J - Economics
J -

Natural Sciences - 4 Credits (With Lab)
K - Physics
Writing Intensive - 3 Credits
W - ITP 210 Technical Writing
Departmental Requirements - 15 Credits
MAT 148D Applied Calculus Statistics
ITT 181 Intro to Computers Physics OR Chemistry
ITT 460
Capstone
General Elective - 9 Credits
(Academic, Professional or Technical)
Professional - 30 Credits
ITP 230 Project Management
ITP 280 Industrial Org., Mgt., \& Supr.
ITP 310 Plant Layout \& Material Hand.
ITP 330 Production Control
ITP 340 Fundamentals of Quality
ITP 410 Technical Ops. and Strategies
ITP 490 Cost Analysis and Control
ITS 300 Ergonomics/Time Study
ITS 320 Occupational Safety \& Health
ACC 110 Financial Accounting Information
for Decision Making

Technical-39 Credits
EYE 112 The Built Environment
ITT 103 Materials Property \& Testing
ITT 221 Power \& Energy Processing
ITT 231 Technical Graphics
ITT 252 Material Processing
ITT 282 Computer Aided Design
ITT 311 Telecommunications
ITT 323 Fluid Power
ITT 353 Automated Mat. Processing
ITT 384 Advanced CAD
ITT 425 Applied Process Control Engineering
ITT 427 Applied Automation Engineering
ITT 440 Internship
Note: This concentration is also available to nontraditional and transfer students with enough related technical experience or coursework to satisfy the technical competency requirements of the concentration or to students with an associate's degree in a metal working related area.

> Bachelor of Science in Industrial Technology
> with a concentration in Construction Management
> (for nontraditional/transfer students)

The minimum number of credits required for the degree: 127

University Requirements
A - Writing Proficiency
B - Math Proficiency
W - Writing-Intensive
Core Curriculum - 31 Credits
C - ENG 100C English Competency
D - MAT 140D Pre-Calcul us (or above)
E - Reasoning
Fine Arts - 6 Credits (Different Depts.)
F - Performance Centered
G - History Centered
Humanities - 6 Credits (Different Prefixes)
H - Literature
I - Times Culture
Social Sciences - 6 Credits (Different Depts.)
J - Economics
J -

Natural Sciences - 4 Credits (With Lab)
K - Physics
Writing Intensive - 3 Credits
W - ITP 210 Technical Writing
Departmental Requirements - 15 Credits
MAT 148D Applied Calculus
Statistics
ITT 181 Intro to Computers
ACC 110 Financial Accounting
Science
General Elective - 4 Credits
(Academic, Professional or Technical)

Professional - 30 Credits
ITC 100 Intro. Construction Management
ITC 341 Construction Docs I
ITC 351 Cost Estimating
ITC 432 Project Management II
ITC 442 Construction Docs II
ITP 230 Project Management I
ITP 280 Industrial Org. Mgt. \& Supervision
ITS 300 Ergonomics/Time Study
ITS 320 Occupational Safety \& Health
BUS 280 Legal Environment Business
Professional ITP or Technical ITT Electives 9 Credits

Technical Electives - 35 Credits
Note: Completion of the construction management (CM) concentration requires a minimum of 127 credits satisfying the University, department, professional, and technical requirements. Academic course equivalency or transfer from regionally accredited construction-related associate's degree programs can only be applied to the University, department, and/or technical requirements via portfolio assessment or transfer. Students interested in the CM concentration must meet with an academic advisor regarding the suitability of credit for portfolio assessment or articulation as applied to the 127 -credit requirement for graduation.

University Requirements
A - Writing Proficiency
B - Math Proficiency
W - Writing-Intensive
Core Curriculum - 31 Credits
C - ENG 100C English Competency
D - MAT 140D Pre-Calculus (or above)
E - Reasoning
Fine Arts - 6 Credits (Different Depts.)
F - Performance Centered
G - History Centered
Humanities - 6 Credits (Different Prefixes)
H - Literature
I - Times Culture
Social Sciences - 6 Credits (Different Depts.)
J - Economics
J -

Natural Sciences - 4 Credits (With Lab)
K - Physics
Writing Intensive - 3 Credits
W - ITP 210 Technical Writing
Departmental Requirements - 18 Credits
MAT 148D Applied Calculus Statistics
ITT 181 Intro to Computers
ACC $110 \quad$ Financial Accounting
ITT $460 \quad$ Capstone
Science
General Elective - 3 Credits
(Academic, Professional or Technical)

Professional-18 Credits
ITP 230 Project Management
ITP 280 Industrial Org., Mgt., \& Supr.
ITP 310 Plant Layout \& Material Hand.
ITP 330 Production Control
ITP 340 Fundamentals of Quality
ITS 300 Ergonomics/Time Study or
ITS 320 Occupational Safety \& Health
Technical-48 Credits
Required - 12 Credits
ITT 221 Power \& Energy Processing
ITT 323 Fluid Power
ITT 425 Applied Process Control
Engineering
ITT 427 Applied Automation Engineering ITT 440 Internship Technical Electives - 36 Credits
Electronic/mechanical/computer related credits obtained via portfolio assessment (ITT 400) and/or academic credit from an accredited
institution
Professional or Technical Electives - 6 Credits
ITT 440 Internship/Elective
Professional or Technical Elective

The minimum number of credits required for the degree: 121

University Requirements
A - Writing Proficiency
B - Math Proficiency
W - Writing-Intensive
Core Curriculum - 31 Credits
C - ENG 100C English Competency
D - MAT 140D Pre-Calculus (or above)
E - Reasoning
Fine Arts - 6 Credits (Different Depts.)
F - Performance Centered
G - History Centered
Humanities - 6 Credits (Different Prefixes)
H - Literature
I - Times Culture
Social Sciences - 6 Credits (Different Depts.) J - Economics
J -
Natural Sciences - 4 Credits (With Lab)
K -
Writing Intensive - 3 Credits
W - ITP 210 Technical Writing
Departmental Requirements - 12 Credits

- Economics
J -

MAT 148D Applied Calculus<br>Statistics<br>Computer<br>Science<br>General Elective - 9 Credits<br>(Academic, Professional or Technical) er

Professional-27 Credits
ITP 230 Project Management
ITP 280 Industrial Org., Mgt., \& Supr.
ITP 340 Fundamentals of Quality
ITP 350 Teambuilding and Facilitation
ITP 381 Human Resource Dev./Ind.
ITS 300 Ergonomics/Time Study
ITS 320 Occupational Safety \& Health
ACC 110 Financial Accounting Information for Decision Making

Credits
Occupational Assessment/Elective Courses
ITT 400 Occupational Competency
(Portfolio Assessment)
ITT 440 Related Occupational Experiences/ Internships
____ Professional Elective

## Tech./Occupational Specialization - 39

## EDU 324 Student Teaching

Full-time student teaching during the senior year is provided for one semester under direct supervision in off-campus situations for all who meet requirements. Prerequisite: instructor permission. Cr 12.

## ATE 402 Student Teaching

Full-time student teaching during the senior year is provided for one semester under direct supervision in off-campus situations for all who meet requirements. Prerequisite: satisfactory completion of professional requirements and advisor's permission. Cr 6.

## ITC 100 Introduction to Construction Management

This course is the first course in the construction management program and will introduce students to construction management. Topics include: the scope of the construction industry, the scope of management activities, the bidding process, contracts, project stages, cost estimating, administration, operations and site management, project planning and scheduling, project monitoring, construction safety and health, and personal and company equipment. Cr 3.

## ITC 341 Construction Documents I

This course will present the value and importance of how construction documents define the rights of, responsibilities of, and relationships among all the parties that are necessary for the successful completion of any project. The architect/engineer (A/E), the contractor(s), and all other project participants must work within guidelines for a successful project conception through design and construction to facility management. Investigation into various documents, agreements, and conditions of contracts will be addressed. The importance of standardized document format will be emphasized. Prerequisite: ITC 100 or instructor permission.

Cr 3.

## ITC 351 Cost Estimating

This course will train students to estimate the costs of various construction activities. Emphasis will be placed on the theory and application of the primary concepts used in the analysis and control of costs pertaining to planning, development, and managing construction operations. The major themes of the budget estimating process; the bid contract estimating process; the negotiated contract estimating process; and advanced estimating techniques will be covered in the course. Spreadsheets and commercial estimating applications will be used. Prerequisite: ITC 100 or instructor permission.

Cr 3 .

## ITC 432 Project Management II

This course focuses on construction project scheduling and control using contemporary computer applications. Topics covered include: activity and resource scheduling, schedule updating and control, project resource management, contract management, cost management, contractor integration, and change management. Prerequisites: ITC 100 and ITP 230.

Cr 3.

## ITC 442 Construction Documents II

This course will consist of a continuation of the Construction Documents I course with emphasis on standards developed by professional associations, such as American Institute of Architects (AIA), Engineers Joint Contract Documents Committee (EJCDC), and the Design-Build Institute of America (DBIA) which have developed standardized documents detailing the necessary information for the completion of a project. The major portion of this course will consist of investigation of, discussion of importance of, and sample project development using: procurement requirements, contracting requirements, specifications, contract drawings, and resource. Actual construction examples will be used. Prerequisites: ITC 100 and ITC 341. Cr 3.

## ITP 210 Technical Writing

A basic study of techniques used in technical fields to communicate in writing. Study includes document purpose, situation analysis, style, format and production of reports, proposals, procedure sheets, technical descriptions, forms, letters, memos, and visual aids. Prerequisite: USM English and writing proficiency requirements must have been met. Prerequisite: ENG 100C English Composition or equivalent.

Cr 3.

## ITP 230 Project Management

This course will present a structured analysis of planning, organizing, directing, controlling, and monitoring resources related to completing a set of well-defined tasks. In this course, significant effort will be devoted to understanding the relationship between technology and human resources, and the demands placed on both as they interact. Also covered will be use of computer-based tools in the management of projects.

Cr 3.

## ITP 280 Industrial Organization, Management, and Supervision

An introduction to industrial organization and management. A study of the common elements of industry as it relates to the areas of research and development; industrial relations; production; financial control; marketing; and labor. Management and supervisory theory and practices will be highlighted. Emphasis will also be placed upon contemporary issues/problems/trends associated with a global economy.

Cr 3.

## ITP 310 Plant Layout and Material Handling

A study of facility and workplace design. Emphasis will be on efficient layout and material flow through manufacturing, warehousing, and service facilities with attention given to the resulting impacts on product and process quality and environmental factors.

Cr 3.

## ITP 330 Production Control

Lectures, discussions, and problems dealing with the principles and practices of production and inventory control. Study includes information flow, forecast-
ing, scheduling, capacity planning, material requirements planning, shop floor control, economic order quantities, order point analysis, ABC analysis, line balancing, project scheduling and just-in-time techniques. Prerequisite: basic math competency. Cr 3 .

## ITP 340 Fundamentals of Quality

An overview addressing fundamental concepts and principles of quality control applied to manufacturing and service sector industries. Major topics include theory and application of qualitative and quantitative tools and techniques as well as quality awards and standards. Specific topics include foundations of quality, planning tools, traditional tools, variability, process set-up verification, pre-control, SPC process capability analysis, acceptance sampling, and quality awards. The methodology, materials, and processes associated with solving problems, and working in teams to improve quality will be the primary focus of the course. Prerequisite: math proficiency or instructor permission. Cr 3.

## ITP 350 Teambuilding and Facilitation

This course will expose students to a variety of topics related to teambuilding, conflict resolution, and the facilitation of meetings. Teambuilding topics include team types and functions, roles, and responsibilities of team members, stages of team development, and common team dynamics. Conflict resolution topics include acknowledging that conflicts will arise in personal and professional settings, understanding the positive and negative roles and manifestations of conflict, techniques for embracing conflict, establishing boundaries for conflict in professional settings and meetings, and setting standards for professional and ethical responsibility when conflicts arise. Meeting facilitation topics include understanding the role of a meeting facilitator, identifying and understanding behavior and participation during meetings, meeting preparation, and meeting documentation.

Cr 3.

## ITP 381 Human Resource Development in Industry

An introduction to the development of human resources in industrial settings. Students are introduced to the organizational environment and the various functions of human resource management. Topics covered include human resource developments and requirements, training and development, compensation management, job analysis and classification, employee management relations, and other pertinent functions. Students become involved in career development for possible preparation of a portfolio of their prior learning and work experience.

## ITP 410 Technical Operations and Strategies

This course will focus on the theory and application of concepts utilized to maintain global manufacturing competitiveness. Major topics include lean manufacturing, kanban, autonomation, visual signaling, pokayoke, takt time, and kaizan techniques. Waste elimination, set-up time reduction, and continuous improve-
ment theory and practices will be highlighted. Prerequisite: ITP 310 or instructor permission. Cr 3.

## ITP 490 Cost Analysis and Control

This course will cover the theory and application of concepts used in analysis and control of costs pertaining to planning, developing, and managing industrial operations. Concepts include financial/cost accounting, time value of money, methods of evaluating competing alternatives, economic value-added analysis, and capital equipment cost justification. Prerequisite: ACC 110 or instructor permission.

Cr 3.

## ITS 300 Ergonomics/Time Study

A study of the bio-mechanics of the human body and how it interacts with a workplace while performing human activity. Surface electromyography measurements techniques are employed along with lifting analysis software, to measure stress on the body, with the effort to eliminate cumulative trauma disorders. Time study measurement techniques are employed in the development of time standard so one will be able to predict productivity. Prerequisite: basic math concepts or instructor permission. Cr 3.

## ITS 320 Occupational Safety and Health

This introductory course provides input into the importance of safety and health in the workplace. Emphasis will be placed on the worker, his or her work environment including such special emphasis as OSHA and other regulatory agencies, hygiene, hazard identification, machine safeguarding, hazardous waste, loss control, and other major concern areas. The course includes the necessary topic areas required by OSHA's 30 hour card program. Upon satisfactory completion of this course, the student will receive the OSHA 30 hour card which is directly issued through OSHA's training unit. Cr 3.

## ITS 321 Workplace Design Ergonomics

This course has been developed to educate the student in the use of ergonomic principles as they apply to the design/redesign of workstations as they exist in all types of working environments. Work analysis in the field, reporting, and presentation of redesigned ergonomic changes are a major requirement. State-of-the-art surface electromyography techniques and lifting analysis equipment will be used in both laboratory and field applications. Prerequisite: ITP 300 or ITS 300 , or instructor permission.

Cr 3.

## ITS 420 Ergonomic Practicum

This course places the senior level student in the workplace for the purpose of completing his/her study of ergonomic principles. The opportunity to apply the materials covered in ergonomics/time study and workplace design ergonomics now can be put into practice. Students will be placed at various work site locations and will be assigned an ergonomic project within each site. To be included in the project are problem identification, hazard
analysis, and problematic corrective actions. Each student practicum will be assigned a faculty advisor. Prerequisite: ES\&H/advisor permission. Cr 3.

## ITT 103 Materials Properties and Testing

A study of the basic properties of industrial materials, their structures, and testing procedures used to determine those properties. Studies include physical, mechanical, optical, chemical, thermal, and electrical properties. Testing, associated literature research, reporting procedures, calculation, and measurement are also included.

Cr 3 .

## ITT 181 Introduction to Computers

An introduction to current and emerging computer applications. The course includes an overview of basic computer hardware and operating system, file management, and general application software. Emphasis is on computer terms, concepts, and the integration of activities, including operating system functions, word processing, spreadsheets, databases, graphics, and communication. Lecture and lab. Cr 3.

## ITT 221 Power and Energy Processing

A technical investigation into energy converters and transactional power systems. Course emphasis is on mechanical and electrical power transmission systems and their applications to modern technology and industrial equipment.

Cr 3 .

## ITT 231 Technical Graphics

A basic course in technical graphics focusing on technical sketching and mechanical drawing. Content includes basic skill development using contemporary industrial standards, technical sketching, orthographic projection, detail and assembly working drawings, and pictorial projections. This course is normally taken before ITT 282 Computer Aided Design.

Cr 3.

## ITT 241 Graphic Communications

This course is a comprehensive survey of common reproduction systems having significance in graphic communications industries. It emphasizes overall workflow and the use of contemporary processes, equipment, and materials as they apply to graphic reproduction planning and design; preparation assembly; conversion; reproduction; distribution, transmission, and transfer; and storage and retrieval, including computer-based tools. Lecture and lab. Prerequisite: ITT 181, computer proficiency, or instructor permission.

Cr 3.

## ITT 252 Material Processing

A laboratory course consisting of the study of materials processing using non-automated hand and machine tools. Multiple materials will be incorporated into the production of selected products. The course will focus on tool use and safety. Prerequisite: ITT 103 or instructor permission.Cr 3.

## ITT 270 Introduction to Computer Hardware

The goal of this course is to introduce the hardware
components, and their respective functions, of microcomputer systems. Activities address the specification, assembly, upgrading, and maintenance of microcomputers. Assignments may include readings of articles and Web-based documents, discussions, tours, and hands-on activities dealing with microcomputer hardware. A basic proficiency with personal computers is assumed. Cr 3.

ITT 272 Introduction to Computer Networking
The goal of this course is to develop an understanding of computer networks and provide basic background necessary for their construction and maintenance. It consists of readings, discussions, tours, and hands-on activities dealing with the structure, hardware, software, and protocols that make up computer networks. Prerequisite: ITT 181 or instructor permission.

Cr 3.

## ITT 281 Internet Web Site Development

This course develops a basic understanding of and skill in the design, development, and maintenance of Web sites. Topics include Internet fundamentals, Web site design methods, HTML, cascading style sheets, HTML editors, FTP, site maintenance, intellectual property issues, and working with clients. Students will develop sample Web and associated design documents, and maintain a Web site on a server. It is assumed that students will have a working knowledge of personal computers. Cr 3.

## ITT 282 Computer-Aided Design

An introduction to computer-aided design systems and their relationship to design, drafting, production, and documentation processes. Emphasis is on understanding and utilizing computer-aided design (CAD) hardware and software. The course focuses on basic 2D and 3D functions as they generally apply to computer-aided design applications. Lecture and lab. Prerequisites: computer proficiency and interpretation of technical drawings. Prerequisite: ITT 181 or instructor permission.Cr 3.

## ITT 311 Telecommunications

An introduction to contemporary telecommunications hardware and applications. Emphasis includes state-of-the-art transmission media such as copper, fiber-optic, and wireless technologies including microwave, radio frequency, and infrared. Additional topics may include: classification of data networks; communications systems parameters such as bandwidth, serial parallel, analog and digital; modulation and multiplexing schemes; and the convergence of data, video, and voice networks. Prerequisite: ITT 181 or instructor permission.Cr 3.

## ITT 323 Fluid Power

A study of fluids at work. Investigation of the theory and application of hydraulics and pneumatics in technology and industry. Design, purpose, construction, and maintenance of fluid power devices and systems included.

Cr 3 .

## ITT 342 Graphic Communications and Publishing

A study of publishing technologies with an emphasis on print production workflow. Laboratory experiences include design, copy preparation, photographic and electronic conversion, assembly and imposition, image carrier preparation, and production processes. Emphasis is on digital workflow in copy preparation; line and halftone conversion; and spot and process color separation. Lecture and lab. Prerequisite: ITT 241 or instructor permission.Cr 3.

## ITT 343 Desktop Publishing and Design

An introduction to the principles of copy preparation and development for image display and reproduction using multiple media. Emphasis is on com-puter-based desktop publishing hardware and software. Activities include scanning, digital photography, illustration, and preparation of production specifications. Prerequisite: ITT 241 or instructor permission.

Cr 3.

## ITT 344 Digital Audio and Video Technology

An introduction to audio and video digital technology. This hands-on course looks at the basic concepts involved in acquisition, editing, and distribution of digital content. Emphasis is on understanding the basic concepts using available camcorders and non-linear editing software. Students will be assigned outside-the-classroom video projects. Prerequisite: ITT 181, equivalent, or instructor permission.

Cr 3.

## ITT 353 Automated Material Processing

This course is designed to provide students with basic understanding of how the computer is employed in the control of machine tools used in today's modern industry to automatically process materials. Emphasis will be placed on the basics of computer numerical control machining (CNC), practical approaches to industrial material selection, machining speeds and feeds as they pertain to different industrial materials, and programming of machine tools and their respective communication control languages. In addition, computer-aided design software will be used to generate programming codes to DNC to the machining centers to produce parts. Prerequisite: ITT 252, ITT 282, or instructor permission.

Cr 3.

## ITT 362 Construction/Transportation Technology

This course will concentrate on construction and transportation systems and technology in an historical, present-day, and futuristic context. Emphasis will be placed on the study of construction projects in a residential, commercial, and super structure setting; and, on transportation devices and systems in a land, air, water, and space environment. This will be a laboratory-based course.

Cr 3.

## ITT 373 Intermediate Computer Networking

The goal of this course is to build upon and further
the understanding of computer networks. Activities address the detailed construction, upgrade designs, and maintenance of both large and small networks. Assignments may include readings of articles and Web-based documents, discussions, tours, and hands-on activities dealing with structure, hardware, software, security, and protocols that make up modern computer networks. Prerequisite: ITT 272 (or ITT/TCE 370) or instructor permission.

Cr 3.

## ITT 376 Network Security and Ethics

This course examines the issues of network security from the perspective of both liabilities and the policies that face network administrators and network security officers. Interrelated with the issues of network security are the ethical responsibilities of those who manage computer networks. Topics addressed in this course will include practical approaches to securing networks using risk analysis, cost effective counter measures, layered defenses, policy development, and implementation procedures. Prerequisite: ITT 272 or instructor permission.

Cr 3.

## ITT 377 Networking for Video and Multimedia

This course provides a technical introduction to video and multimedia systems as they are developed, delivered, and managed over high-speed networks. Students will explore and work with video and multimedia file formats, storage systems, with a focus on high-speed networks. Video and multimedia standards and protocols will be examined including compression and security aspects of delivering audio, video, animation, and new forms of media. Bandwidth, interactivity, quality or service, platform support, and standards are key components of this course. Prerequisites: ITT 181 and ITT 272 or instructor permission.

Cr 3.

## ITT 382 Advanced Web Site Development

This course develops an understanding of techniques that go beyond basic HTML to develop dynamic Web sites. Topics include a review of xhtml and cascading style sheets, server-side programming, writing to and reading from files and databases, site design, and coding standards. Students are expected to be proficient with HTML, HTML editors, JPEG and GIF image manipulation, FTP, and basic Web site maintenance. Some programming experience is desirable. Prerequisite: ITT 281, equivalent, or instructor permission. Cr 3.

## ITT 384 Advanced Computer-Aided Design

An advanced computer-aided design course focusing on three-dimensional modeling, image rendering, and animation. Emphasis is on understanding and utilizing current and emerging computer-aided and design hardware and software to present designs, products, and processes effectively. The course emphasizes basic concepts of three-dimensional model creation and use. Prerequisite: ITT 282 or instructor permission.

Cr 3.

## ITT 400 Occupational Competency

This course is designed to allow credit for technical expertise learned on the job or through attendance at appropriate/related schools, workshops, and/or seminars. The student's technical knowledge and skill must be documented through the University's portfolio assessment procedures. Program Option II majors only. See advisor for further information. Cr 1-39.

## ITT 425 Applied Process Control Engineering

A study of the fundamental concepts, devices, and applications of electronic components and controllers utilized in industrial process control. Laboratory sessions focus on instrumentation, programming, downloading, and wiring discrete input/output devices to programmable logic controllers. Prerequisites: ITT 181, ITT 221, ITT 323 or instructor permission.

## ITT 427 Applied Automation Engineering

An investigation into the technology, nomenclature, and applications of robotic and automated material handling systems. Emphasis includes system components, communications integration, programming, and feedback devices. Prerequisites: ITT 221, ITT 252 , ITT 323 , ITT 425 or instructor permission. Cr 3 .

## ITT 440 Related Occupational Experiences/Internships

This experience is designed to advance technical and supervisory skills during employment with a business or industry. Interested students must meet with the internship coordinator prior to the job search process, and the hosting firm must be approved by the coordinator prior to course registration. Securing suitable employment is the student's responsibility. Formal assignments will be discussed during weekly seminars. Contact the internship coordinator for additional information. Health insurance is required of students in this course. Prerequisite: instructor permission. Cr 1-3.

## ITT 441 Advanced Occupational Experiences/Internships

This second-level course is a continuation of the
occupational/internship experience in ITT 440. It is designed to further advance technical and supervisory skills during employment with a business or industry. Interested students must meet with the internship coordinator prior to the job search process, and the hosting firm must be approved by the coordinator prior to course registration. Securing suitable employment is the student's responsibility. Formal assignments will be discussed during weekly seminars. Contact the internship coordinator for additional information. Health insurance is required of students in this course. Prerequisites: ITT 440 and instructor permission.

Cr 1-3.

## ITT 452 Metallurgy and Metrology

A study of the properties of metals and how they are altered to meet industrial requirements. Measurements and testing of these properties along with inspection techniques and heat treatment activities will be performed. Individual and group activities will be conducted. Prerequisite: ITT 103, ITT 252 , or instructor permission.

Cr 3.

## ITT 460 Capstone

This course integrates curriculum content from several upper-division courses to create a capstone experience involving the management of technical systems. Students will develop an understanding of the issues related to integrating components and equipment into an operational system. Major areas of the course include linkages among system components. An additional component of the course will be a problem-solving activity employing many of the technologies available in the Department's laboratories. Lecture and lab. Prerequisite: senior-level course and instructor permission.

Cr 3.

## ITT 490 Special Problems in Technology

Provides upper-level students an opportunity to pursue independently a topic, project, or experiment of interest. Students will prepare a contract or proposal for study to be conducted and, upon completion, submit findings in a scholarly report or other evidence of merit. Prerequisite: instructor permission. Cr var.

# College of Nursing and Health Professions 

Interim Dean: Judith A. Spross<br>Director of Nursing: Krista Meinersmann; Chair of Recreation and Leisure Studies: William McCullough; Chair of Exercise, Health, and Sport Sciences: Chris Scott; Coordinator of Graduate Nursing Program: Marjorie Thomas Lawson; Coordinator of Undergraduate Nursing Programs: Elizabeth Elliott; Coordinator of Athletic Training Education: Ben Towne; Coordinator of Exercise Science: Karen Croteau

Faculty in Nursing
Professors: Spross, Childs; Associate Professors: Farmer, Fournier, Hart, Healy, Johnson, Lawson, Meinersmann, Moody, Peake-Godin, Sepples; Assistant Professors: Caines, Randall, Samia, Sarton, Yetter; Instructors: Caton-Lemos, Doane, Dvorak, Elliott, Lamberson, Martin, Vincent; Lecturer: Bowder; Associate Professors Emeritae: Burson, Keith, MacPherson, Normandeau, Rodgers, Tiffany, Tukey, Vines, Woods Smith; Assistant Professor Emerita: Nealand

Faculty in Recreation and Leisure Studies
Associate Professors: Jones, McCullough, Meyer, Richeson
Faculty in Exercise, Health, and Sport Sciences
Professor: Croteau; Associate Professors: Blum, Scott, Toy; Assistant Professors: Murphy, Schilling; Lecturer: Towne

The College of Nursing and Health Professions (CONHP) offers programs leading to baccalaureate or master's degrees in nursing and baccalaureate degrees in health sciences, radiation therapy, therapeutic recreation, athletic training, and exercise science. In addition, it offers minors in holistic and integrative health, recreation leadership, and nature tourism, and certificates in nursing education and holistic health. Special study options are available for registered nurses seeking to attain a baccalaureate or master's degree in nursing and for students who hold a baccalaureate degree in another field who are interested in a baccalaureate or master's degree in nursing. The CONHP nursing programs are approved by the Maine State Board of Nursing and accredited by the Commission on Collegiate Nursing Education (CCNE). The athletic training education program is accredited by the Commission on Accreditation of Athletic Training Education (CAATE).

The goals of the College are to:

1. Provide nursing, therapeutic recreation, health sciences, radiation therapy, exercise and sport science education to a diverse student population within a state institution of higher education.
2. Prepare health professionals to respond to the health needs of the people of Maine.
3. Conduct and disseminate research as a means of increasing knowledge and improving practice.
4. Promote a model of practice based on the highest standards of humane and ethical professional conduct.
5. Provide professional service and consultation to the community and University in the areas of nursing, health, radiation therapy, exercise, sport science, and therapeutic recreation.
The programs of the CONHP are subject to change at any time without notice in advance. For more information on CONHP visit the Web site at www.usm.maine.edu/conhp.

## Commitment to Civility

The concepts of community and social justice are central to the mission and philosophy of the University of Southern Maine College of Nursing and Health Professions. Faculty, students, and staff are committed to promoting a healthy and just environment that supports transformative learning, academic integrity, open communication, and personal and professional growth among the diverse members
of our academic community. We believe that these commitments are grounded in intellectual openness, in personal and professional accountability, and in the democratic values of inclusivity and mutual respect which are guided by rational discourse and by a relational ethic of care.

We are grateful for the opportunities to learn and work with peoples of diverse ethnic, racial, religious, cultural, political, and economic backgrounds as well as with people who are disabled and people of different gender, sexual orientation, and age. Acknowledging the ethics and values that underlie the health professions, it is our belief that these ethics and values should be recognized, practiced, and cultivated in our learning and work environments. Our goal is to increase the awareness of students, staff, and faculty to the importance of civility, its implications, and the behaviors that are acceptable and not acceptable in our learning community.

Civility is the art of treating others, as well as ourselves, with respect, dignity, and care. Civility is apparent when we are sensitive to the impact that our communications, practices, and behaviors have on others, and when we acknowledge each person's self-worth and unique contributions to the community as a whole.

As members of the College, we are committed to learning and practicing in ways that support a caring and socially just community. The following are examples of how we create and sustain civility.

1. Support the autonomy and just treatment of self and others by facilitating an open, respectful, and caring environment.
2. Accept responsibility and accountability for one's own behavior when interacting with students, faculty, and staff.
3. Respect and protect the rights and property of others.
4. Speak or behave in a manner that does not disrupt or interfere with the learning or work of others.
5. Practice personal and academic integrity and expect it from others.
6. Demonstrate respect for others by actively discouraging prejudice, bias, bigotry, violence, coercion or intimidation against any member of the academic community.
7. Demonstrate a willingness to listen and be open to hearing the perspectives of others. This includes actively seeking to hear from and making a safe space for voices of dissent.
8. Explore controversial issues through open dialogue and respectful deliberation.
9. Respect freedom of expression while recognizing that such tolerance does not require agreement with expressed ideas.
10. Engage institutional resources and persons to resolve conflict when necessary.

We will not tolerate disrespectful or abusive speech and/or disruptive behavior from individuals or groups. Everyone has the responsibility to foster a safe and supportive learning and work environment. This can include any individual asking others to stop disrespectful or abusive speech and/or disruptive behavior. Collectively, faculty, staff, and students in the College of Nursing and Health Professions are responsible for ensuring a safe and supportive learning and work environment.

## Bachelor of Science in Nursing

This program prepares individuals to begin their nursing practice in a variety of health care settings and in specialty areas. Graduates possess the foundation needed to assume beginning leadership and management positions and to begin graduate studies. The regular B.S. in nursing and the R.N. studies option are available in both Portland and Lewiston-Auburn. The accelerated B.S. and the second degree option program are available in Portland.

The baccalaureate nursing program requires the completion of 120-128 credits of study and culminates in a baccalaureate degree. Graduates are eligible to sit for State Board licensure exams upon completion of the program.

In addition to requirements established for admission to the University, the undergraduate nursing program requires high school chemistry and biology with labs. See admission section of the catalog for further requirements.

Because so much of the baccalaureate nursing program entails supervised clinical experience, the nursing faculty reserves the right to limit enrollments. Admission to the program is highly selective. The process includes consideration of SAT scores, academic record and a required essay.

Any student enrolled in or seeking enrollment in nursing courses must be advised by a nursing advisor. Transfer admission into the nursing major is available according to the number of open seats in a cohort-based system. Admission of transfer students will be done once a year in mid-April. Internal and external candidates may apply for transfer with a minimum of 30 credits and a minimum GPA of 3.0. Candidates internal to USM with fewer than 30 credits, a GPA of 3.0 and specific prerequisite requirements (completed English and math readiness, English composition or equivalent, anatomy \& physiology I \& II, chemistry, sociology, human growth and development, and psychology) may apply for change of major in consultation with the nursing advisor. Prior to starting 300-level clinical nursing courses, a student must have a minimum GPA of 2.67 in the required natural science courses (see prerequisite areas/natural science requirements) and an overall GPA of 2.75. The overall GPA must be maintained throughout the program of study.

The University policy exempting immunization requirements for students born prior to 1956 does not apply to nursing students. Because health care workers are at a higher risk for certain illnesses, all students must meet the health requirements of the School of Nursing. These requirements are listed in the student handbook, and on the School's Web site. All health requirements must be met and the documentation be on file in the College of Nursing and Health Professions (CONHP) prior to entry into clinical courses, beginning with NUR 212/213. Students are required to provide verification of compliance with health requirements throughout their program. Students must be certified in professional rescuer cardiopulmonary resuscitation (CPR) and have health insurance, equal to or better than the USM Student Health Insurance Basic Plan prior to entry into clinical courses.

Students must pay for and complete a comprehensive background check prior to starting clinical courses. Students must sign a disclosure agreement allowing the School to provide access to this background information to our clinical affiliates. Affiliates have the right to deny clinical placement based on criminal background. Denial of clinical placement will stop progression in the nursing program.

The costs incurred by a USM CONHP student for health requirements and background check may provide for additional loan eligibility and/or can be built into the financial aid costs of attendance/education. Students are required to request consideration by the Financial Aid Office, including providing documentation of the actual costs incurred.

To cover lab costs, a $\$ 15.00$ lab fee is assessed for each seven-week laboratory course; a $\$ 30.00$ fee for each semester-long laboratory course; $\$ 50.00$ per credit for clinical nursing courses for small student-to-faculty ratio instruction. A $\$ 75.00$ fee is assessed each semester to cover the cost of standardized tests. This fee includes the cost of a review course at the end of the program. Nursing majors must purchase uniforms and lab coats. Because clinical experiences occur in a variety of settings in the southern Maine area, students must provide their own transportation to rural as well as urban areas. Professional liability insurance is highly recommended for students in the nursing major.

## Academic Requirements

## General Requirements

Students must fulfill general requirements by completing the Core curriculum, the Lewiston-Auburn College Common Core, or the University Honors Program. General requirements include courses fundamental to a baccalaureate education including English composition, quantitative decision making, critical thinking, natural and behavioral sciences, arts, and humanities. For graduation no general education requirements or prerequisites may be taken pass-fail and no more than three credits of non-nursing elective may be taken pass-fail. Only one C- or D grade from the arts or humanities will be accepted. Otherwise, a minimum grade of C or above in these courses must be achieved. Grades of C - or below are not acceptable in any prerequisite course.

| General education courses specific to the nursing major include:. |  |
| :--- | ---: |
| Natural Science and Math Requirements |  |
| Human Anatomy and Physiology and Lab | $8-9$ credits |
| Chemistry for the Health Sciences | 3 credits |
| Microbiology and Lab | $4-5$ credits |
| Human Nutrition | 3 credits |
| Pathophysiology | 3 credits |
| Statistics | $3-4$ credits |


| Social Science Requirements |  |
| :--- | :--- |
| Introductory Psychology | 3 credits |
| Introductory Sociology * | 3 credits |
| Human Growth and Development (life span preferred) | 3 credits |
| 9 credits |  |
| Students completing the Core curriculum must complete |  |
| 9 credits of electives | 9 credits |
| 9 credits |  |

*Courses within a curriculum may integrate this course content.

## Prerequisites to Sophomore Nursing Courses

The following courses must be taken before or concurrent with entry into sophomore level nursing laboratory courses (NUR 209/210 or NUR 212/213), in addition to having completed 24 credits and holding a minimum cumulative GPA of 2.75:

English Composition
Human Anatomy and Physiology and Lab
Chemistry for the Health Sciences
Human Growth and Development
Introductory Psychology
Introductory Sociology*
In addition to sophomore-level prerequisite courses, the following courses must be taken before entry into junior-level clinical nursing courses and students must hold a minimum GPA of 2.75 and a science GPA of 2.67:

Course
Skills of Analysis/Philosophy*
Introduction to Nursing
Pathophysiology
Microbiology and Lab
Human Nutrition
Health Assessment and Lab
Nursing Arts and Science and Fundamentals of Nursing Lab
Pharmacology
In addition, Statistics must be completed before taking CON 321, Health-Related Research.
*Courses within a curriculum may integrate this course content.

## Nursing Courses

Nursing content at the upper division is organized to facilitate the integration of nursing knowledge and skills and to draw on a foundation of learning from other disciplines. The nursing curriculum focuses on providing opportunities for students to develop skills in partnering with various community stakeholders to identify community strengths, resources, and needs. Courses focus on the promotion, mainte-
nance, and restoration of health. Students have experiences which involve assessment, planning, implementation, and evaluation of care for individuals of all ages, in families, groups of clients, and communities across the health continuum. Inpatient and outpatient settings, community health agencies, public health settings, long-term care facilities, schools, and industries are used for clinical experiences.

Clinical nursing courses require 28 contact hours per credit except NUR 480 Practicum/Care Management, the final seven-week capstone clinical course. This course requires 168 contact hours, or 56 contact hours per credit.. Students must take all required CON and NUR courses at USM.

Upper Division Nursing Courses
CON 302 Pharmacology 3 credits
*NUR 311 Reproductive \& Sexual Health Nursing 3 credits

* NUR 312 Reproductive \& Sexual Health Nursing Lab 2 credits
*NUR 315 Child Health Nursing 3 credits
*NUR 316 Child Health Nursing Lab 2 credits
NUR 323 Adult/Older Adult Health Nursing 3 credits
NUR 325 Adult/Older Adult Health Nursing Lab 4 credits
NUR 330 Mental Health Nursing 3 credits
NUR 331 Mental Health Nursing Lab 2 credits
$\begin{array}{ll}\text { NUR } & 332 \\ \begin{array}{l}\text { Nursing Care of the Older Adult in the } \\ \text { Community }\end{array} & 3 \text { credits }\end{array}$
NUR 339 Community Nursing Partnerships I 2 credits
NUR 341 Community Nursing Partnerships II 2 credits
CON 321 Health-Related Research 3 credits
CON 356 Concepts in Community Health 3 credits
NUR 413 Advanced Nursing Skills Lab 1 credits
NUR 423 Management of Critically Ill Adult/Older Adult 3 credits
NUR 425 Management of Critically Ill Adult/Older Adult Lab

2 credits
NUR 470 Leadership, Management, and Ethics 3 credits
NUR 480 Practicum/Care Management 3 credits
*Beginning in spring 2010, these courses will be numbered as $400-\mathrm{level}$ courses.
Students are assigned to a cohort which follows a specific sequence of courses. Junior level clinical courses begin in either the fall or the spring semester in Portland and in the spring semester in Lewiston.

Students progress through lecture and clinical course combinations in Adult/Older Adult Health (NUR 323/325), Mental Health (NUR 330/331), Reproductive and Sexual Health (NUR 311/312), Child Health (NUR 315/316), and Management of Critically Ill Adults/Older Adults (NUR 423/413/425). The final semester entails Leadership, Management and Ethics (NUR 470) and Practicum/Care Management (NUR 480). Practicum is a seven-week capstone clinical course. Students must complete the lecture/clinical course combination assigned for practicum placement prior to beginning this capstone experience.

## Retention/Progression Policies

The following are exceptions or additions to University progression policies.
Students in the nursing programs must maintain class standing according to hours accomplished, with a grade point average as follows:

Credit Hours For Good Standing For Probationary Standing

| 46-120 | 2.75 | $2.5-2.74$ |
| :--- | :--- | :--- |
| $25-45$ | 2.75 | $2.5-2.74$ |
| $0-24$ | 2.5 | $2.0-2.49$ |

Standards apply to both part-time and full-time students. By maintaining a 2.75 GPA or above during the upper-division years, the student maintains a standard appropriate to professional practice. The student must accomplish, as a minimum, a GPA for good standing according to the number of credits earned or the student will be dismissed from the major.

The lowest acceptable grade in required NUR/CON courses and their prerequisite courses is a grade of C . If placed on probation, a student has a maximum of two
semesters to achieve a satisfactory cumulative GPA or the student will be suspended or dismissed. While on probation, the minimum semester GPA accomplished must be the GPA for good standing according to the number of credits earned (see above) or the student will be suspended. A student is suspended for one semester; the student will be dismissed at the end of the next enrolled semester if the GPA requirement is not met.

The nursing faculty reserves the privilege of accepting and retaining only those students who, in the judgment of the faculty, satisfy the requirements of scholarship and health necessary for nursing. A student who admits to or is found guilty of a violation of the American Nurses' Association guidelines for ethical practice (see College of Nursing and Health Professions Student Handbook) is subject to suspension or dismissal from the University. The Maine State Board of Nursing may refuse to grant a license on the basis of violation of academic or professional integrity or on the basis of criminal history record information relating to convictions denominated in Title 5, Chapter 341, Subsection 5301 of the Maine Revised Statutes Annotated.

Requisite to beginning junior-level clinical coursework, a student must achieve a natural science GPA of 2.67 . The natural sciences consist of the following courses: Anatomy and Physiology I and II with labs, Chemistry, Microbiology with lab, Human Nutrition, and Pathophysiology. Students who do not achieve a natural science GPA of 2.67 after completing all prerequisite courses may not begin juniorlevel clinical courses. Students then have a maximum of one year between completing NUR 209/210, 212/213 and raising their natural science GPA to 2.67 in order to begin clinical coursework. Science courses may only be repeated once.

There must be no more than one year between completion of NUR 209/210, NUR 212/213, and CON 302 and starting NUR 323/325 or they will have to be repeated. There must be no more than one year between taking didactic/clinical course combinations. Three or more semesters without taking didactic/clinical nursing courses requires the student to repeat all didactic/clinical courses. Once a student begins NUR $323 / 325$, the student must complete all degree requirements within four years.

Nursing lecture and clinical courses must be taken concurrently the first time a student is enrolled in each course. A student who is unable to maintain a grade point average of 2.75 but whose average remains above 2.5 is on probation within the School of Nursing. Such a student may take support courses until his or her grade point average has been restored to the level of 2.75 or above, at which point progress in nursing lecture and clinical courses may resume. A student who is unable to maintain a grade point average of 2.5 will not be allowed to maintain matriculation in the School of Nursing and will be required to either change majors, be suspended, or be dismissed from the University according to its policies.

A grade of C - or below in a nursing lecture course or an F in a nursing clinical course (see low pass policy) will stop the student from registering for any other NUR clinical, companion/didactic course, NUR 470 or NUR 480. In addition, students who receive a failing grade in a required clinical course which finishes partway through the semester may be withdrawn from all other concurrent clinical courses (required or elective). Only the course in which the unsatisfactory grade is received needs to be repeated. The student must achieve a grade of C or better, or a passing clinical grade in the course which is repeated before entering the next nursing lecture or clinical course. A course may be repeated only once. A student may repeat a maximum of two CON or NUR required courses, clinical or didactic, in which the student receives a grade of C- or less. An unsatisfactory grade in a third CON or NUR required course will result in dismissal from the nursing program. If students received an F in an elective NUR clinical course, they may not register to repeat that clinical elective or enroll in any other NUR clinical elective without permission of the director of the School of Nursing.

The academic record of a student who receives multiple unsatisfactory grades in the same semester in prerequisite, nursing, and/or support courses, or who receives a C-, D, or F in one of the above listed courses when repeating the course due to an unsatisfactory grade, or an F in a nursing clinical course will be reviewed by the Undergraduate Admissions and Advancement Committee to determine the appropriate academic action. Academic actions may include revision of major status, progression, probation, suspension, or dismissal. Matters of personal concern to the student will be considered. The committee will recommend to the dean a decision regarding progression or dismissal.

Appeals may be made to the Undergraduate Admissions and Advancement Committee. A request for exception to the policy must be initiated by the student.

## Low Pass Grades

Low pass (LP) grades are used in clinical courses to inform students whose performance is near failing. Students are held accountable to address the weaknesses identified in their performance appraisal with subsequent clinical faculty. A second low pass grade constitutes an F and stops progression in clinical/didactic coursework (see above progression policies).

## Incomplete Grades

A temporary grade may be assigned by a faculty member when a student, because of extraordinary circumstances, has failed to complete course requirements in a nursing course or CON required course. Incomplete grades in upper division nursing courses must be completed with a letter grade of C or better before progressing to the next course.

## Graduation Requirements

To be eligible for graduation with a bachelor of science degree with a major in nursing, the student must have successfully completed all requirements, and a minimum of 120-128 credit hours with a grade point average of at least 2.75 .

## Accelerated B.S.

RN Studies Option
Recognizing the desire of people with baccalaureates in disciplines other than nursing to become nurses, the faculty has designed an accelerated program that leads to a B.S. in nursing in 15 months of full-time study. This program admits students through a competitive admissions process who have attained a minimum GPA of 3.0 on a 4.0 scale in their prior degree. Students must complete statistics and anatomy and physiology prior to beginning the program.

Sample Curriculum Plan

| BIO | 345 | Pathophysiology | 3 credits |
| :--- | :--- | :--- | :--- |
| CON | 252 | Human Nutrition | 3 credits |
| CON | 302 | Pharmacology | 3 credits |
| CON | 321 | Health Related Research | 3 credits |
| CON | 356 | Concepts in Community Health | 3 credits |
| NUR | $209 / 210$ | Total Health Assessment and Lab | 5 credits |
| NUR | 212 | Nursing in Arts and Sciences | 3 credits |
| NUR | 214 | Fundamentals of Nursing Lab for |  |
|  |  | Accelerated Students | 3 credits |
| NUR | $311 / 312$ | Reproductive and Sexual Health Nursing | 5 credits |
| NUR | $315 / 316$ | Child Health Nursing | 5 credits |
| NUR | $323 / 325$ | Adult/Older Adult Nursing | 7 credits |
| NUR | $330 / 331$ | Mental Health Nursing | 5 credits |
| NUR | 332 | Nursing Care of the Older Adult in the |  |
|  |  | Community | 3 credits |
| NUR | 413 | Advanced Nursing Skills Lab | 1 credit |
| NUR | $423 / 425$ | Management of Critically Ill | 5 credits |
| NUR | 436 | Community Nursing Partnership I | 2 credits |
| NUR | 437 | Community Nursing Partnership II | 2 credits |
| NUR | 470 | Leadership and Management and Ethics | 3 credits |
| NUR | 480 | Practicum/Care Management | 3 credits |
|  |  | (last 7 weeks) |  |

Recognizing the need and desirability for registered nurses to attain baccalaureate and master's degrees within the state, the Nursing faculty has designed two options for RNs-the first leading to a bachelor of science degree, and the second (described in USM's graduate catalog) leading to a master's degree. Realizing that RNs returning to school face many complexities, every effort is made to remain attentive and flexible in adjusting the plan of study and accommodating individual needs. Advice with prerequisites, course planning, and course sequencing for RNs may be obtained by contacting Brenda Webster at 207 780-4802.

All RNs must fulfill the University's 30 credit residency requirement ( 6 credits earned at another UMS campus may be applied toward residency).

The SON recognizes a maximum of 30 nursing credits (RN credit options) transferred from an associate's degree nursing (ADN) program as basic nursing credits required in the baccalaureate program. These credits are applied toward fulfillment of the baccalaureate requirements for RN students who have successfully completed CON 308, Professional Communication and Technology Utilization in Nursing and the Health Sciences. Nursing credits earned in the ADN program beyond the basic 30 credits above may be used as elective credit. RNs graduating from a diploma program will be awarded the basic nursing credits (30) for a fee, upon successful completion of CON 308 Professional Communication and Technology Utilization in Nursing and the Health Sciences. Additional information may be obtained through the Office of Prior Learning Assessment.

The following courses must be completed, or are available for credit by examination, prior to entry into the upper division nursing courses.

English Composition* Anatomy and Physiology I \& II**
General Psychology Growth and Development
General Sociology* Pathophysiology
Skills of Analysis* Microbiology
Statistics (prior to research) Chemistry**
*These courses may be substituted for their equivalents within the new general education.
**Chemistry and anatomy and physiology requirements are waived with the successful completion (grade of C) of pathophysiology.

University requirements in general education or the Core curriculum must meet the progression standards of those curricula, e.g., students taking the Lewiston Common Core (LCC) must complete all 100 level courses before 200 level, and 200 level courses prior to 300 level.

Students must take all required CON and NUR courses at USM.
Upper division nursing courses, in required sequence for RNs, include:

Credits

A. NUR 309/310 Health Assessment and Health Assessment Lab 4

CON 308 Professional Communication and Technology 3
B. NUR 314 RN Credit Options 30

CON 321/322 Health-Related Research/Writing Intensive 3
CON 356 Concepts in Community Health 3
NUR 370 Theory of Clinical Practice 3
C. NUR 419 Community Nursing Partnerships 2

NUR 474 Leadership and Management for RNs 3
NUR 476 Theory and Concepts of Nursing Practice 3
NUR 481 Clinical Practicum for RNs 3
RN students must matriculate in the University prior to enrollment in the upper division nursing course sequence except for Health Assessment and Professional Technology Utilization in Nursing and Health Sciences. Clinical courses may not be taken unless RN credit options have been completed and posted. USM and the University of Maine (UM) have a collaborative RN/BS option that is available through the University Network Education System (UNET). Students may take required and equivalent courses from the other campus for residency credit.

## Admission Requirements for the $R N$ to BS Option

The RN applicant must (a) meet the general admission requirements of the University, (b) provide evidence of current licensure as a registered nurse in Maine, and (c) must have a GPA of 2.5 or better. Applications of those with a GPA below 2.5 will receive consideration by the Undergraduate Admissions and Advancement Committee. All policies applicable to students in the baccalaureate program (refer to Retention/Progression Policies) also apply to students in the RN to BS option program.

## Minor in Holistic and Integrative Health

The holistic and integrative health minor is designed to provide the foundations and philosophies of a holistic and integrative approach to health care and to elucidate the fundamental world view, diagnostic methods, and healing techniques utilized in the practice of various complementary healing modalities. A primary focus of the minor is the exploration of the issues that arise in moving toward an integrative approach to addressing the needs of mind, body, and spirit. This minor is open to all USM students, and may be of a particular interest to the College of Nursing and Health Profession majors and to students in psychology, social work, and
anthropology, or to any student interested in addressing personal health in a holistic manner. The minimum number of credits required to complete the minor is 18 . Students may transfer up to six credits toward the completion of the minor from other universities.

| Foundation courses | ( 6 credits required) |  |
| :--- | :--- | :--- |
| CON | 280 | Holistic Health I |
| CON | 281 | Holistic Health II |
| Healing modalities | (complete 6 credits from the following) |  |
| CON | 283 | Healing and Spirituality |
| CON | 284 | Botanical Therapies |
| CON | 285 | Perspectives on Animal-Assisted Therapy |
| CON | 299 | Reiki: Energy Medicine |
| CON | 311 | Psychosocial Interventions for Older Adults |
| CON | 490 | Therapeutic Touch |
| Wellness Knowledge and Development (complete 6 credits from the following) |  |  |
| CON | 219 | Lifetime Physical Fitness and Wellness |
| CON | 252 | Human Nutrition |
| CON | 270 | Holistic Approach to Reproductive Health |
| REC | 110 | Foundations of Recreation and Leisure |

or
Two 1.5 credit RHF courses may be substituted for 3 credits under this category. Examples include:*

| RHF | 102 | Karate |
| :--- | :--- | :--- |
| RHF | 109 | Beginning Weight Training |
| RHF | 117 | Low Impact Aerobics |
| RHF | 118 | Yoga |
| RHF | 122 | Aerobic Kickboxing |
| RHF | 123 | Sea Kayaking |
| RHF | 126 | Stability and Physio-Ball Exercise |
| RHF | 127 | Pilates |

*Other RHF courses may be substituted with permission from the coordinator of the minor.

## Graduate Program Offerings

## Option for Non-nurses with Degrees in Other Fields (second degree option)

In response to the continued interest by individuals with baccalaureate degrees in other fields, the nursing faculty members have designed an accelerated option leading to a master's degree (MS) in nursing. Details regarding this option are found in USM's graduate catalog.

The College of Nursing and Health Professions offers the master of science in nursing degree. Advanced practice clinical areas available for study include adult, family or adult, family psychiatric nurse practitioner, and psychiatric/mental health. Other graduate programs include: the R.N. to master of science degree option for registered nurses; the clinical nurse leader concentration, the M.S./M.B.A.; and master's degree for certified or state approved advanced practice nurses, or the adult health care management clinical nurse specialist. The College also offers post-master's certificates of advanced study in psychiatric/mental health nursing, adult health nursing, and family health nursing.

## Courses with a CON prefix are listed at the end

 of the College of Nursing and Health Professions section.
## NUR 100 Introduction to Professional Nursing

This course orients students to the expectations of a baccalaureate education in nursing. Academic communication and critical thinking skills within the context of professional nursing are emphasized. Issues of ethical and professional accountability related to the role(s) of the nurse are explored. Historical and contemporary perspectives on the nature and scope of nursing practice are examined.

Cr 3.

## NUR 200 Introduction to Professional Nursing for Advanced Student

This course has been specifically designed for advanced students who are either transfer students with 60 or more credits or have a degree in another field. The course introduces career opportunities in health care as well as how prior learning and work experiences might build on and blend into a career in nursing. The historical and contemporary perspectives on the nature and scope of nursing will be investigated through utilization of online resources, advanced library skills, writing, and online discussion. Other topics will include skills of communication, critical thinking and the relationship between professional nursing and the broad base of theoretical and empirical knowledge derived from the behavioral and physical sciences and the humanities. Cr 3.

## NUR 209 Health Assessment

This course provides knowledge and skills essential to conduct in-depth bio-psycho-social-cultural health assessment of well individuals throughout the life span. Emphasis is placed on data collection through effective communication and physical skills followed by data analysis and identification of nursing diagnostics. Prerequisites: Anatomy and Physiology I and II, NUR 100 and a GPA of 2.75 .

Cr 3.

## NUR 210 Health Assessment Practicum

The course provides knowledge and skills essential to conduct an in-depth bio-psycho-social-cultural, holistic health assessment of well individuals through the life span. Emphasis is placed on data collection through development of communication and physical examination skills. Data will then be analyzed and nursing diagnoses developed. Concurrent with NUR 209.

Cr 2.

## NUR 211 Nursing Role: Accelerated/Option

This seminar introduces accelerated and option program nursing students to content in nursing history, theory, and research. Students will consider the major constructs of nurse, health, and caring practice. It is a transitional course that seeks to prepare students for the accelerated programs of study at USM, provide a framework for understanding professional education, and for exploring the transition into nursing.

Cr 1.

## NUR 212/512 Nursing Arts and Science

This course introduces the student to concepts and skills basic to the art and science of nursing. The nursing process is introduced as a problem-solving tool, and is used along with scientific principles in the teaching of foundational nursing therapeutics used in most practice settings. Prerequisites: 24 credits, a GPA of 2.75 , and Anatomy and Physiology I and II (or concurrent). NUR 512 is offered in the summer semester and is open only to option students. Cr 3.

## NUR 213/214/514 Fundamentals in Nursing Lab I

This course focuses on the cognitive basis, scientific principles, and manipulative component of psychomotor skills used when implementing foundational nursing therapeutics, which promote, maintain, and restore the health of the client. Concurrent with NUR 212. NUR 214/514 is offered in the summer semester and is open only to accelerated/option students.

Cr 2.

## NUR 309 Health Assessment for RNs

This course provides the RN student with knowledge and skills essential to conduct in-depth bio-psycho-social-cultural health assessments of well individuals. The course includes examination of the concepts of wellness and health promotion across the life span. Prerequisite: RN licensure. Cr 2.

## NUR 310 Health Assessment Lab for RNs

This course provides the opportunities for the RN to apply knowledge and skills necessary to conduct total health assessments. Concurrent with NUR 309. Prerequisite: RN licensure.

Cr 2.

## NUR 311 Reproductive and Sexual Health Nursing

This course focuses on the theory and research in reproductive and sexual health care. While emphasis is placed on holistic nursing care of diverse healthy families from preconception through the childbearing process, high risk conditions, including end of life care for neonates, and the interventions necessary for successful adaptation are also discussed. Male and female reproductive health issues and nursing care across the lifespan will be presented. Prerequisite or concurrent: NUR 323/325 and CON 302.

Cr 3.

## NUR 312 Reproductive and Sexual Health Nursing Lab

This course offers students experience in providing holistic nursing care to individuals and families engaged in childbirth experiences. Emphasis is placed on health needs and alterations during the childbearing process, as well as promotion and maintenance of health before, during, and after childbirth. Concurrent with NUR $311 . \quad$ Cr 2.

## NUR 314 RN Credit Option

RNs graduating from a diploma program or an asso-
ciate degree program will be awarded basic nursing credits upon successful completion of CON 308 Professional Communication and Technology Utilization in Nursing and the Health Sciences. Prerequisites: RN licensure, NUR 308/309, CON $308 . \quad$ Cr maximum of 30.

## NUR 315 Child Health Nursing

In this course, students examine family-centered nursing care in the health promotion and health care of children. Class discussions focus on theories, research, and literature related to health needs and common health problems of children. Family, heredity, environment, and socioeconomics are among the factors examined in discussions of nursing in child health. Prerequisites: CON 302; NUR $323 / 325$.

Cr 3 .

## NUR 316 Child Health Nursing Lab

Child health lab provides an opportunity for the student in various health care settings to apply the theoretical concepts of health promotion, maintenance, and restoration with children and their families who are at risk or may be experiencing alterations in health. Concurrent with NUR 315.

Cr 2.

## NUR 317 Maternal Child Health in a Developing Country

Students will explore international health issues common to Latin American countries which directly impact women and children. Students will gain a more thorough understanding of environmental, socio-cultural, and political factors that affect maternal child health in a developing nation. Through this course and the clinical experience linked with it, students will explore aspects of partnership building with an international community-based organization to assess health risk factors and plan health promoting activities specific to identified children's health issues. Students will gain an understanding of risk assessment, which includes problem posing and formulation of solutions, as part of their coursework. This coursework is closely tied to the Dominican Republic International Service Learning program.

Cr 1.

## NUR 323/523 Adult/Older Adult Health Nursing

During this course, students will explore evidencebased nursing therapeutics which support both the adult and the older adult client experiencing health problems. The course considers major health problems in the United States, focusing on nursing knowledge needed for care of adults and older adults experiencing acute and chronic alterations in health in a variety of care settings. This course will encourage students to develop and practice critical thinking skills necessary for delivery of family-centered care in today's complex health care system. The roles of collaboration, advocacy, and teaching are introduced as the student nurse interacts with clients and their support systems across the continuum of care. Prerequisites: NUR 100, 200 or 211;

NUR 209/210; NUR 212/213; BIO 345; CON 302 (within one year). NUR 523 is offered in the fall semester and is open only to option students. Cr 3.

## NUR 325 Adult/Older Adult Health Nursing

 LabStudents will intervene therapeutically with adults and older adults experiencing health problems. Students will practice problem-solving skills and critical thinking as they perform nursing roles in acute care settings. Concurrent with NUR 323. Cr 4.

## NUR 326 Dominican Republic Community Nursing Partnership I <br> Cr 1.

NUR 327 Dominican Republic Community
Nursing Partnership II Cr 4.
NUR 328 Dominican Republic Community
Nursing Partnership III Cr 1.

## NUR 330/530 Mental Health Nursing

This course examines the theory and practice of psychiatric/mental health nursing. Assessment of clients and intervention strategies are explored. Interdisciplinary aspects of mental health care delivery and current issues in mental health nursing are discussed. Prerequisite: CON 302; NUR 323/325. NUR 530 is offered in the fall semester and is open only to option students.

Cr 3.

## NUR 331 Mental Health Nursing Lab

This course offers students an opportunity to focus nursing practice on promotion, maintenance, and restoration of mental health. Clinical experience is provided in a mental health/psychiatric nursing setting. The emphasis is on application of concepts of mental health/psychiatric nursing. Concurrent with NUR 330.

Cr 2.

## NUR 332 Nursing Care of the Older Adult in the Community

The focus of this course is the family-centered care of older individuals in the community. Emphasis is on nursing assessment, diagnosis, and therapeutic interventions with individuals and families coping with chronic illnesses. Health promotion/risk reduction strategies are applied. The roles of the nurse in interdisciplinary community settings are explored. Ethical issues unique to community settings are analyzed. Prerequisite: NUR 212/213 or concurrent. Cr 3.

## NUR 339 Community Nursing Partnerships I

This is the first in a two-course series (NUR 339 and NUR 341). Over the course of two, 3-credit or three, 2-credit semesters, students will engage in partnership with a specific community. This sequence of courses incorporates the concepts of partnership building, risk identification, and health promotion within a community-based context. Students will collaborate with community partners to develop an understanding of both short- and long-term needs of the community. Problem posing and problem solv-
ing will come from the community. Students will engage in ongoing community assessment, support communities in developing long term interventions/approaches, and engage in evaluation of community level practice. Students will identify individuals and families within their communities who would benefit from individual and family-based nursing assessment, planning, intervention, and evaluation. Students will work with health care providers in these communities to assess the need for and to augment the services available. Students will engage in both formative and summative evaluation over the course of their interaction with the community. Students will consider issues of continuation and termination as they work with individuals, families, fellow students, and community partners. Prerequisite or concurrently: CON 356 .

Cr 2-3.

## NUR 341 Community Nursing Partnerships II

This is the second in a two-course series. See NUR 339 for description. Prerequisite: NUR 339.

Cr 2 or 3 .

## NUR 370 Theory for Clinical Practice

This course focuses on the nursing profession and the process of knowledge development within the profession. The intent is to provide participants with opportunities to explore the processes of inquiry in nursing. Participants will have opportunities to explore various modes of nursing inquiry, including scientific, philosophical, and historical. Praxis, or the development of knowledge through the cycle of acquiring experience, reflecting on experience, and enhancing practice is central to understanding what influences nursing. Relationships between practice, theory, and research are explored. Four foundational concepts: personal meaning, ways of knowing, time/transitions, and context/culture serve to focus critical reflections in this course. In recognizing multiple ways of developing knowledge, participants have the opportunity to explore how practice may differ within varying perspectives. A USM online course fee of $\$ 25.00$ per credit hour will be charged for this course.

Cr 3.

## NUR 386 Geary Clinical Cooperative

This course is a combination of a two-credit elective nursing course offered during the summer and a paid summer experience ( 10 weeks full time with a Registered Nurse preceptor at Maine Medical Center). Students are socialized into the professional role of the nurse through hands-on experience, mentoring, observational experiences, and seminar discussions focused on evidenced-based nursing practice. There are seminar meetings with instructor and assignments to complete throughout the summer. Prerequisite: NUR 323-325, GPA 3.0, and an accepted application for employment at MMC. Cr 2.

## NUR 413 Advanced Nursing Skills Lab

This course builds on the theory, scientific principles, and psychomotor skills introduced in NUR 212/213 to promote role development in the core
competencies of nursing practice. Prerequisites: NUR 212, 213 or 214, concurrent with NUR 423 or 523 , and 425 or 526.

Cr 1.

## NUR 419 Community Nursing Partnerships for RNs

This course incorporates the concepts of partnership building, risk identification, risk reduction, and health promotion within a community based context. Students work with selected communities that are developing long-term solutions to previously identified health problems. Open to RN students only. Prerequisites: NUR 309/310, CON 308, CON 356, CON 472, RN licensure, and CPR certification.

Cr 2.

## NUR 423/523 Management of the Critically Ill Adult/Older Adult

During the course, students will examine evidencebased therapeutic nursing interventions which support adult and older adult clients experiencing complex health problems. This course will encourage students to practice critical thinking skills necessary for delivery of ethical care to individuals and families experiencing high acuity illnesses. The roles of leader, collaborator, and coordinator are discussed as the nurse interacts with clients who are viewed as holistic beings. Prerequisites: CON 302, NUR $323 / 325$. NUR 523 is offered in the spring semester and is open only to option students.

Cr 3.

## NUR 425 Management of the Critically III Adult/Older Adult Lab

Students will intervene therapeutically with adults and older adults experiencing complex health problems. Students practice problem-solving skills and critical thinking as they perform nursing roles in acute care settings. Concurrent with NUR 423 or NUR 526.

Cr 2.

## NUR 436 Community Nursing Partnerships for Accelerated B.S. Students

In this course students work within a community partnership to care for individual clients/families and work with residents in developing communitybased health programs. This experience provides students with an opportunity to care for culturally diverse individuals, families, and groups. Leadership roles, including ongoing community partnership development, will be emphasized. Prerequisite: CON 356 or concurrent.

Cr 2.

## NUR 437 Community Nursing Partnerships for Accelerated B.S. Students

Building on NUR 436, this course continues to focus on the experiences of partnership building with a diverse population in a community setting. The concepts of risk reduction and health promotion are applied to the development of an intervention with a segment of the community. Evaluation of the intervention is considered part of continuous community assessment as well as partnership development.

Cr 2.

NUR 439 Community Nursing Partnerships III
This is an elective course. See NUR 339 for course description. Prerequisite: NUR 339, 341 . Cr 2.

## NUR 470 Leadership, Management, and Ethics

Students explore professional and ethical issues that affect delivery of health care as well as the complexity of the nurse case management role using theories related to complex systems, leadership, and change. This course also provides an overview of the management and leadership roles in nursing practice with a major focus on organizational analysis, leadership and change theories, and quality improvement. Must be taken the last semester in the curriculum unless permission is granted by the director of nursing.

Cr 3.

## NUR 474 Professional Issues: Leadership, Management, and Organizations

This course provides the RN student with an overview of the theoretical frameworks of management and leadership roles in nursing practice with a major focus on organizational analysis. Focus is on leadership and change theories, conflict management, and quality improvement for the delivery of health care services. Prerequisite: CON 308, NUR 309/310.

Cr 3.

## NUR 476 Theory Related to Clinical Specialty for RNs

This course allows the RN student to develop and enhance clinical theory, knowledge, and practice using self-designed study with a focus on a selfselected clinical specialty. An overview of current theoretical models of care, nursing therapeutics, and evidence-based practice is provided and then used to develop a broader understanding of practice and care issues unique to the clinical specialty. Prerequisites: CON 308, NUR 309/310. Cr 3.

NUR 480 Practicum/Care Management
This practicum provides a culminating intensive
clinical experience that provides students with an opportunity to refine their clinical practice. The course emphasizes the integration of the multiple roles of nursing and serves as a vehicle for enhancing critical thinking and communication. The primary purpose of the course is to develop competency in nursing care, including organizational, prioritization, and decision-making skills. End of life issues and professional ethics as applicable to a wide range of settings will be explored. To the degree possible, students select a practicum site consistent with their area of special interest with seminar sharing of the issues of diverse roles, clients, settings, and philosophies of practice. All students will present orally and demonstrate competency utilizing technical presentation applications. Prerequisite: All theory-linked clinical courses must be taken prior to or concurrent with NUR 480. Concurrent clinical courses cannot be in clinical area of practicum placement. This is the final clinical course.

Cr 3 .

## NUR 526 Management of the Critically III Adult/Older Adult Lab

Students will intervene therapeutically with adults and older adults experiencing complex health problems. Students practice problem-solving skills and critical thinking as they perform nursing roles in acute care settings. Concurrent with NUR 423/523 (for option students only).

Cr 4 .

## NUR 538 Community Nursing Partnership for Option Students

In this course students work within a community partnership to care for individual clients/families and work with residents in developing communitybased health programs. This experience provides students with an opportunity to care for culturally diverse individuals, families, and groups. Leadership roles, including ongoing community partnership development, will be emphasized. Prerequisite: CON 356.

Cr 2.

## Bachelor of Science in Radiation Therapy

The bachelor of science in radiation therapy is a baccalaurate completion program which encompasses and builds on the associate degree curriculum in radiation therapy. This program provides a means for those individuals with career goals in radiation therapy to obtain the broader, general education and support courses needed to complement their technical associate degree education.

The goals of the program are to:

1. Provide a broadening education to radiation therapists with a technical background.
2. Enhance the practice capabilities of radiation therapists.
3. Provide a basis for graduate education.
4. Enhance interdisciplinary understanding and collaboration.

## Admission Requirements

Applicants must (a) meet the general admission requirements of the University, (b) hold an associate's degree of 60 credits or more in radiation therapy from a regionally accredited educational institution, or have matriculated in such a program, and (c) hold a GPA of 2.0 or better.

## Academic Requirements

The curriculum reflects the goal of enhanced professional skills and practice. Courses selected for the major promote better understanding of changes in the health care system, foster critical thinking, integrate clinical and research skills, and improve assessment skills and concomitant decision making regarding interventions. In addition to the 60+ credits transferred from an associate's degree, the curriculum includes completion of the USM Core curriculum, a 39-credit radiation therapy major, and 12 credits of electives, for a total of $120+$ credits.

The radiation therapy major consists of the following courses:
Total Health Assessment (lab optional) 2
Human Growth and Development 3
Death and Dying* 3
Communication in the Family* 3
or
Interpersonal Communication Skills* 3
Chemistry for the Health Sciences 3
Theoretical Foundations of Learning* 3
Health-related Research 3
Statistics 3
Concepts in Community Health 3
Managing Organizational Behavior 3
Critical Thinking about Economic Issues 3
Professional Issues: Leadership, Management, and Organizations $\quad 3$

The following courses are highly recommended as general electives:
Human Heredity and Embryology
Genetics
Introduction to Computers
*If these courses are not available, students should consult with the nursing director to determine appropriate alternatives.

## Progression Policies

Students in the radiation therapy program must maintain class standing according to hours accomplished, with a GPA as follows:

Credit Hours For Good Standing For Probationary Standing
61-90 $\quad 2.0 \quad 1.8$

91 or more $2.0 \quad 1.9$
Standards apply to both part-time and full-time students. Students must achieve a grade of C - or better in courses designated as part of the radiation therapy major. The course in which a D or F is received needs to be repeated with a grade of C - or better. A course may be repeated only once. The academic record of a student who
receives multiple grades of D or F in the same semester in radiation therapy major courses or when repeating a course due to an unsatisfactory grade will be reviewed by a faculty committee. The committee will recommend a decision regarding progression or suspension to the dean.

## Graduation Requirements

To be eligible for graduation with a bachelor of science degree in radiation therapy, the student must hold an associate of applied science in radiation therapy, have successfully completed all baccalaureate requirements, and have completed a minimum of 120 credits with a GPA of at least 2.0.

## Bachelor of Science Degrees in Exercise, Health, and Sport Sciences

The Department of Exercise, Health, and Sport Sciences offers degrees in athletic training, exercise science (majoring in health fitness or exercise physiology), and health sciences. The Department's athletic training education program is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Upon completion of the curriculum, the undergraduate athletic training student will be eligible to challenge the Board of Certification (BOC) examination for the athletic trainer. Upon completion of their respective curricula, health fitness and exercise physiology majors will be eligible to challenge an eclectic mix of national certification examinations including the American College of Sports Medicine's (ACSM) Health Fitness Instructor and Exercise Specialist certification examinations and the National Strength and Conditioning Association's Certified Strength and Conditioning Specialist examination. Health sciences graduates are prepared for careers in general health science fields and for admission to graduate and professional programs.

In addition to the requirements established for admission to the University, the Department of Exercise, Health, and Sport Sciences requires applicants to have successfully completed high school chemistry and biology with labs. See the admission section of the catalog for further requirements.

Athletic training, health fitness, and exercise physiology include required supervised clinical, practicum, and internship experiences. The exercise, health, and sport sciences faculty reserve the right to limit enrollment in these programs. In addition, because these experiences occur in a variety of settings in the southern Maine area, students must provide their own transportation to rural as well as urban areas. It is highly recommended that students purchase professional liability insurance. Students cannot double major within department offerings.

Students enrolled in other USM programs of study must meet with the Department chairperson to discuss transfer requirements and their reasons for transfer. Such students will be required to complete SPM 100 with a grade of C- or better. Acceptance into the Department is dependent on reasons for transfer, cumulative GPA, and space availability.

Each exercise, health, and sport sciences laboratory and clinical course offering has a fee ranging from $\$ 20$ to $\$ 150$.

## Probation

Regardless of degree, probation within the Department of Exercise, Health, and Sport Sciences lasts for a period of one year.

Justifications for a student being placed on academic probation for poor academic performance following any semester include:

1. Failure to maintain a minimum cumulative GPA of 2.25 for health fitness and health sciences majors or failure to maintain a minimum cumulative GPA of 2.50 for athletic training and exercise physiology majors.
2. Receiving grades lower than a C - in a required course.
a. Students who receive a grade below C - in a course will maintain probation status within the Department until the student earns a grade of C- or higher within the one-year probation period.
b. Students receiving a grade lower than a C - in a required course will not be allowed to sequence into post-requisite coursework until the prerequisite deficiency has been rectified.
Students enrolled in a Department of Exercise, Health, and Sport Sciences major may be placed on academic probation twice during the student's academic career. Subsequent to a third infraction and/or failing to rectify deficiencies within any given one-year probation period, students will be removed from their declared major and from their status as a student within the Department. Upon rectifying all deficiencies students can reapply for admission into a Departmental major. Readmitted students who become academically deficient will immediately, and permanently, relinquish their status as a student within the Department.

Note: A student who admits to or is found guilty of a violation of academic integrity (see USM Student Academic Integrity policy), the ACSM's or NATA's Code of Ethics may be suspended or dismissed from the Department and/or the University.

Bachelor of Science in<br>Exercise Science-<br>Health Fitness Major

## Retention and Progression Requirements

Students will be retained within the health fitness major providing the following criteria are maintained throughout their undergraduate experience:

1. Meet the published "technical standards" for the health fitness major. Technical standards will be addressed and completed during SPM 100.
2. Maintain a minimum cumulative GPA of 2.25
3. Earn a minimum grade of C - in required courses
4. Present proof of current American Red Cross Cardiopulmonary Resuscitation (CPR) for the Professional Rescuer certification, or its equivalent, prior to enrolling in the following courses: SPM 385, SPM 395, SPM 495.

## Graduation Requirements

Students will graduate with a bachelor of science degree in exercise science with a major in health fitness when the following are satisfied:

1. Minimum cumulative GPA of 2.25
2. Completion of all University Core curriculum requirements
3. Completion of all exercise, health, and sport sciences core required coursework
4. Completion of all health fitness major coursework
5. Completion of 121-123 credit hours.

## Major Requirements

The major consists of 121-123 credit hours, which includes the University's Core curriculum.
University Core Courses (31-32 or 34-35 credit hours) Credits Required (7-8 credit hours)
D MAT 120D Introduction to Statistics or D PSY 105D Statistics in Psychology ..... 3-4
K PHY 101K Introduction to Physics ..... 3
PHY 102K Introduction to Physics Lab ..... 1
W Writing-intensive requirement
Electives (24-27 credit hours)
C Basic Composition ..... 3
E Skills of Analysis ..... 3
*F Fine Arts - Performance ..... 3
G Fine Arts - History ..... 3
H Humanities - Literature ..... 3
I Humanities - Other Times/Culture ..... 3
J Social Science ..... 3
\# J Social Science ..... 3
EYE Course ..... 3For students who matriculate with less than 24 total credit hours
*THE 170 Public Speaking highly recommended
\#Students pursuing a business minor should take BUS 165J - Consumer Studies
Exercise, Health and Sport Sciences Core Requirements (39-40 credit hours)Credits
CHY 107 Chemistry for Health Sciences ..... 3
or
CHY $113 \mathrm{~K} \quad$ Principles of Chemistry I ..... 3
CHY 114 K Laboratory Techniques I ..... 1
BIO 111 Human Anatomy and Physiology I ..... 3
BIO 112 Practical Human Anatomy and Physiology I ..... 1.5
BIO 211 Human Anatomy and Physiology II ..... 3
BIO 212 Practical Human Anatomy and Physiology II ..... 1.5
CON 216 Emergency Response ..... 3
CON 219 Lifetime Physical Fitness and Wellness ..... 3
CON 252 Human Nutrition ..... 3
CON 352 Nutrition for Physical Performance ..... 3
SPM 100 Introduction to Sports Medicine ..... 3

| SPM | 325 | Methods of Resistance Training and Conditioning | 3 |
| :--- | :--- | :--- | :--- |
| SPM | 330 | Physiology of Exercise | 3 |
| SPM | 381 | Kinesiology | 3 |
| SPM | 430 | Exercise Testing, Assessment, and Prescription | 3 |

Health Fitness Major Requirements (48-51 credit hours) Credits
Required (36 credit hours)
BUS 200 Introduction to Business ..... 3
SPM 230 Psychology of Physical Activity and Sport ..... 3
SPM 260 Exercise Leadership ..... 3
SPM 315 Group Exercise Instruction ..... 3
SPM 350 Health Promotion Programs ..... 3
SPM 385 Health Fitness Practicum I ..... 3
SPM 395 Health Fitness Practicum II ..... 3
SPM 450 Exercise for Special Populations ..... 3
SPM 481 Fitness Facility Management ..... 3
SPM 495 Clinical Internship/Co-op ..... 9
Electives (12-15 credit hours) ..... Credits
SPM 235 Lab Techniques in Nutrition and Exercise ..... 3
SPM 340 Therapeutic Exercise ..... 3
SPM 398 Independent Study ..... 1-3
SPM 400 Sports Nutrition Symposium ..... 3
SPM 431 Advanced Exercise Physiology ..... 3
SPM 435 Practical Application of Nutrition ..... 3
SPM 460 EKG Interpretation ..... 3
SPM 485 Senior Thesis ..... 3
CON 302 Pharmacology ..... 3
CON 321 Health-Related Research ..... 3
PSY 400 Sport Psychology Institute ..... 3
PSY 400 Health Psychology Institute ..... 3
ITS 300 Ergonomics/Time Study ..... 3
ITS 320 Occupational Safety and Health ..... 3
ITS 321 Workplace Design Ergonomics ..... 3

* CON $280 \quad$ Holistic Health I ..... 3
* CON 281 Holistic Health II ..... 3
* CON 283 Healing and Spirituality ..... 3
* CON 284 Botanical Therapies ..... 3
* CON 285 Perspectives on Animal-Assisted Therapy ..... 3
* CON 311 Psychosocial Interventions for Older Adults ..... 3
*CON 490 Therapeutic Touch ..... 3
~BIO 201 Genetics ..... 3
~BIO 281 Microbiology and Human Disease ..... 3
~BIO 345 Pathophysiology ..... 3
~BIO 401 General Physiology ..... 3
~BIO 431 Immunology ..... 3
~BIO Any 200-level or higher BIO courses
\# ACC 110 Financial Accounting Information for Decision Making ..... 3
\# ACC 211 Managerial Accounting Information for Decision
Making ..... 3
\#BUS 165J Consumer Studies ..... 3
\# BUS 210 Introduction to Sports Management ..... 3
\#BUS 260 Marketing ..... 3
\#BUS 280 Legal Environment of Business ..... 3
\#FIN 190 Personal Finance ..... 3
\# BUS Any 300-level or higher BUS, FIN, or RMI courseOther courses per Departmental permission.
* \# Along with required Department courses (CON 219, CON 252), students who successfully complete CON 280, CON 281 and any other $2 *$ courses satisfy requirements for the holistic and integrative health minor (HIH). Consult with the coordinator of the HIH minor in the School of Nursing to declare the HIH minor. Along with required health fitness courses (BUS 200), students who successfully


## Bachelor of Science in Exercise ScienceExercise Physiology Major

complete any 6 \# courses satisfy requirements for the minor in business administration offered through the School of Business Consult with the School of Business to declare a business minor.
$\sim$ Along with required biology courses (BIO 111, 112, 211, 212), students who successfully complete any $3 \sim$ courses satisfy requirements for a biology minor offered through the Department of Biological Sciences.

## Retention and Progression Requirements

Students will be retained within the exercise physiology major providing the following criteria are maintained throughout their undergraduate experience:

1. Meet the published "technical standards" for the exercise physiology major. Technical standards will be addressed and completed during SPM 100.
2. Maintain a minimum cumulative GPA of 2.50
3. Earn a minimum grade of C - in required courses
4. Present proof of current American Red Cross Cardiopulmonary Resuscitation (CPR) for the Professional Rescuer Certification, or its equivalent, prior to enrolling in the following courses: SPM 375, SPM 431, SPM 460, SPM 495.
5. Present proof of health insurance coverage equal to or better than the USM Student Health Insurance Plan (basic) prior to enrolling in the following courses: SPM 375, SPM 460, SPM 495. Documentation should include a copy of a current health insurance card with the name of an insurance carrier, policy number, etc.
6. Documentation of receiving the first two of three required Hepatitis B immunization injections prior to enrolling in SPM 460. Documentation should include copies of the laboratory reports that the student received the injections. If the student chooses not to be Hepatitis B immunized, he or she must read, complete, and sign the form entitled "Hepatitis B Vaccine Declination Assumption of Risk and Release" prior to enrolling in SPM 460.
7. Documented proof of receiving the third injection of the Hepatitis B Immunization series prior to enrolling in SPM 495. Formal documentation indicating the aforementioned CPR, health insurance, and Hepatitis B immunization requirements have been met must be on file with the Department of Exercise, Health, and Sport Sciences.

## Graduation Requirements

Students will graduate with a bachelor of science degree in exercise science with a major in exercise physiology when the following are satisfied:

1. Minimum cumulative GPA of 2.50
2. Completion of all University Core curriculum requirements
3. Completion of all exercise, health, and sport sciences core required coursework
4. Completion of all exercise physiology major coursework
5. Completion of 121-123 credits

## Major Requirements

The major consists of 121-123 credit hours, which includes the University's Core curriculum.
University Core Courses (31-32 or 34-35 credit hours) Credits
Required (7-8 credit hours)
$\begin{array}{lll}\text { D MAT 120D } & \text { Introduction to Statistics or } & \\ \text { D PSY 105D } & \text { Statistics in Psychology } & 3-4\end{array}$
K PHY 101K Introduction to Physics 3
PHY 102K Introduction to Physics Lab 1
W Writing-intensive requirement
Electives (24-27 credit hours)
C Basic Composition
E Skills of Analysis $\quad 3$
*F Fine Arts - Performance 3
G Fine Arts - History 3
H Humanities - Literature 3
I Humanities - Other Times/Cultures ..... 3
J Social Science ..... 3
J Social Science ..... 3
EYE Course ..... 3For students who matriculate with less than 24 total credit hours.
*THE 170F Public Speaking highly recommended
Exercise, Health, and Sport Sciences Core Requirements (39-40 credit hours)
Credits
CHY 107 Chemistry for Health Sciences ..... 3
or
CHY 113 K Principles of Chemistry I ..... 3
CHY 114 K Laboratory Techniques I ..... 1
BIO 111 Human Anatomy and Physiology I ..... 3
BIO 112 Practical Human Anatomy and Physiology I ..... 1.5
BIO 211 Human Anatomy and Physiology II ..... 3
BIO 212 Practical Human Anatomy and Physiology II ..... 1.5
CON 216 Emergency Response ..... 3
CON 219 Lifetime Physical Fitness and Wellness ..... 3
CON 252 Human Nutrition ..... 3
CON 352 Nutrition for Physical Performance ..... 3
SPM 100 Introduction to Sports Medicine ..... 3
SPM 325 Methods of Resistance Training and Conditioning ..... 3
SPM 330 Physiology of Exercise ..... 3
SPM 381 Kinesiology ..... 3
SPM 430 Exercise Testing, Assessment, and Prescription ..... 3
Exercise Physiology Major Requirements (48-51 credit hours) Credits
Required (36 credit hours)
CON 302 Pharmacology ..... 3
CON 321 Health-Related Research ..... 3
BIO 345 Pathophysiology ..... 3
SPM 235 Lab Techniques in Nutrition and Exercise ..... 3
SPM 375 Exercise Physiology Practicum ..... 3
SPM 431 Advanced Exercise Physiology ..... 3
SPM 435 Practical Application of Nutrition ..... 3
SPM 460 EKG Interpretation ..... 3
SPM 485 Senior Thesis ..... 3
SPM 495 Clinical Internship/Co-op ..... 9
Electives (12-15 credit hours)
SPM 260 Exercise Leadership ..... 3
SPM 315 Group Exercise Instruction ..... 3
SPM 398 Independent Study ..... 1-3
SPM 495 Clinical Internship/Co-op ..... 3

* BIO 201 Genetics ..... 3
*BIO 281 Microbiology and Human Disease ..... 3
* BIO 401 General Physiology ..... 3
*BIO 431 Immunology ..... 3
CHY 115 Principles of Chemistry II ..... 3
CHY 116 Laboratory Techniques II ..... 1
CHY 251 Organic Chemistry I ..... 3
CHY 252 Organic Chemistry Lab ..... 2
CHY 253 Organic Chemistry II ..... 3
CHY 254 Organic Chemistry Lab II ..... 2
CHY 461 Biochemistry ..... 3
CHY 462 Biochemistry Lab ..... 2
CHY 463 Biochemistry II ..... 3
CHY 464 Biochemistry Lab II ..... 2
NUR 209 Health Assessment ..... 2
NUR 210 Health Assessment Practicum ..... 2
MAT 152D Calculus A ..... 4

| MAT | 220 | Statistics for the Biological Sciences | 4 |
| :--- | :--- | :--- | :--- |
| PSY | 400 | Sport Psychology Institute | 3 |
| PSY | 400 | Health Psychology Institute | 3 |
| SPM | 400 | Sports Nutrition Symposium | 3 |
| Other courses per Departmental permission |  |  |  |

## Bachelor of Science in Athletic Training

*Along with required biology courses (BIO 111, BIO 112, BIO 211, BIO 212, BIO 345), students who successfully complete any other 2 * courses satisfy requirements for a biology minor offered through the Department of Biological Sciences.

Athletic training accreditation guidelines dictate that only a limited number of students can matriculate into the athletic training education program (ATEP) at any one time. Please see the curriculum director of the CAATE accredited athletic training education program for additional information.

Special note to transfer students: All transfer students are encouraged to schedule an appointment with the ATEP director to discuss admission criteria and other pertinent information concerning the program. It is not possible to give complete and accurate information about your specific situation on a Web site or in a catalog. Speaking with the ATEP director is the only way to be correctly advised about transferring.

The following criteria must be met in order for an athletic training student to begin the clinical rotation component of the ATEP. Thus, prior to SPM 210 Athletic Training Principles I a student must:

1. Complete SPM 100 with a minimum grade of C-
2. Complete CON 216 with a minimum grade of C-.
3. 2.25 required to enroll in SPM 210; maintain a minimum cumulative GPA of 2.50 therafter.
4. Meet the published "technical standards" for the athletic training education program. Technical standards will be addressed and completed during SPM 100.
5. Complete a formal interview with the ATEP director and the clinical instructors of athletic training, if necessary.
6. Present proof of current American Red Cross Emergency Response certification, or its equivalent.
7. Present proof of current American Red Cross Cardiopulmonary Resuscitation (CPR) for the Professional Rescuer certification, or its equivalent.
8. Present documentation of receiving the first two of three required Hepatitis B immunization injections. Documentation should include copies of the laboratory reports that the student received the injections. If the student chooses not to be Hepatitis B immunized, he or she must read, complete, and sign the form entitled "Hepatitis B Vaccine Declination Assumption of Risk and Release".
9. Present a current (within one year) health history and physical examination performed by a health care worker approved to perform such services (e.g., licensed physician, nurse practitioner). Documentation should include written verification that the student passed a physical examination..
10. Present proof of health insurance coverage equal to or better than the USM Student Health Insurance Plan (basic). Documentation should include a copy of a current health insurance card with the name of an insurance carrier, policy number, etc.

## Retention and Progression Requirements

Prior to starting clinical rotations in SPM 270 Athletic Training Clinic I, all students must:

1. Complete SPM 210/211 with a minimum grade of C-.
2. Complete BIO 111/112 with a minimum grade of C-.

Students will be retained within the athletic training education program providing the following criteria are maintained throughout their undergraduate experience:

1. Maintain a minimum cumulative GPA of 2.50
2. Earn a minimum grade of C - in required courses
3. Documented proof of receiving the third injection of the Hepatitis $B$ Immunization series prior to enrolling in SPM 370.
4. Present proof of current health insurance coverage, emergency response and CPR for the professional rescuer certifications, or their equivalents, prior to enrolling in the following courses: SPM 270, SPM 370, SPM 371, SPM 470, SPM 495.
Students failing to fulfill any of the above requirements will be placed on probation (see the Department of Exercise, Health, and Sport Sciences probation policy).

## Graduation Requirements

Students will graduate with a bachelor of science degree in athletic training when the following are satisfied.

1. Minimum cumulative GPA of 2.50
2. Completion of all University Core curriculum requirements
3. Completion of all exercise, health, and sport sciences core required coursework
4. Completion of all athletic training major coursework
5. Completion of 121-122 credits

## Degree Requirements

The bachelor of science in athletic training consists of 121-122 credit hours, which includes the University's Core curriculum.

University Core Courses (31-32 or 34-35 credit hours) Credits
Required (10-11 credit hours)
$\begin{array}{clc}\text { D MAT 120D } & \text { Introduction to Statistics or } & \\ \text { PSY 105D } & \text { Statistics in Psychology } & 3-4\end{array}$
J PSY 101J General Psychology I 3
K PHY 101K Introduction to Physics 3
PHY 102K Introduction to Physics Lab 1
W Writing-intensive requirement
Electives (21-24 credit hours)
C Basic Composition 3
E Skills of Analysis 3
*F Fine Arts - Performance 3
G Fine Arts - History 3
H Humanities - Literature 3
I Humanities - Other Times/Culture 3
J Social Science 3
EYE Course 3
For students who matriculate with less than 24 total credit hours.
*THE 170F Public Speaking highly recommended
Exercise, Health, \& Sport Sciences Core Requirements (39-40 credit hours) Credits
CHY 107 Chemistry for Health Sciences 3
or
CHY 113K Principles of Chemistry I 3
CHY 114 K Laboratory Techniques I 1
BIO 111 Human Anatomy and Physiology I 3
BIO 112 Practical Human Anatomy and Physiology I $\quad 1.5$
BIO 211 Human Anatomy and Physiology II 3
BIO 212 Practical Human Anatomy and Physiology II $\quad 1.5$
CON 216 Emergency Response 3
CON 219 Lifetime Physical Fitness and Wellness 3
CON 252 Human Nutrition 3
CON 352 Nutrition for Physical Performance 3
SPM 100 Introduction to Sports Medicine 3
SPM 325 Methods of Resistance Training and Conditioning 3
SPM 330 Physiology of Exercise 3
SPM 381 Kinesiology 3
SPM 430 Exercise Testing, Assessment, and Prescription 3


## Bachelor of Science in Health Sciences

The bachelor of science in health sciences curriculum reflects the different educational goals and breadth of needs of the students enrolled in the program. The bachelor of science in health sciences can also be a baccalaureate completion program for associate's degree allied health graduates. As health care shifts to outpatient and community settings, and more health promotion and health education, these graduates with their expanded professional role capability will be able to provide more effective care to the community. The curriculum includes completion of the USM Core curriculum requirements, the health sciences core requirements, and one track of study: health and wellness, exercise and nutrition, or health administration.

## Retention and Progression Policies

Students will be retained within the health sciences major providing the following criteria are maintained throughout their undergraduate experience:

1. Maintain a minimum cumulative GPA of 2.25 .
2. Earn a minimum of C - in required courses.

## Graduation Requirements

Students will graduate with a bachelor of science degree in health sciences when the following are satisfied:

1. Maintain a minimum cumulative GPA of 2.25 .
2. Earn a minimum grade of C - in required courses.
3. Completion of all University Core curriculum requirements.
4. Completion of all health sciences coursework per related track.
5. Completion of 121-122 credit hours.

## Degree Requirements

The degree consists of 121-122 credit hours, which includes the University's Core curriculum.

University Core Curriculum (34-35 credits)
C Basic Composition 3
D MAT 120D Introduction to Statistics or PSY 105D Statistics in Psychology 3-4
J PSY 101J General Psychology I 3
J HRD 200J Human Growth and Development 3
E Skills of Analysis 3
F Fine Arts-Performance 3
G Fine Arts-History 3
H Humanities-Literature 3
I Other Times/Other Cultures 3
K Natural Sciences and Lab 4
W Writing Intensive 3
For students who matriculate with less than 24 total credit hours.
Health Sciences Core (30-33 credits)
$\begin{array}{ccc}\text { BIO } & 111 \quad \text { Human Anatomy and Physiology I }\end{array}$
BIO $112 \quad$ Practical Human Anatomy and Physiology Lab I $\quad 1.5$
BIO 211 Human Anatomy and Physiology II 3
BIO 212 Practical Human Anatomy and Physiology Lab II $\quad 1.5$
CON 216 Emergency Response 3
CON 219 Lifetime Physical Fitness and Wellness 3
CON 252 Human Nutrition 3
CON 321 or CON 322W Health-Related Research 3
CON 356 Concepts in Community Health 3
PHI 210 Ethical Theories 3
SPM $230 \quad$ Psychology of Physical Activity and Sport 3

* SPM 100 Introduction to Sports Medicine 3
*SPM 100 is required for students with less than 12 credit hours at the time of matriculation.

General Electives as accepted with academic advisor's approval (27-30 credits)
Choose one track of study (27-30 credits)*

- Health and Wellness
- Exercise and Nutrition
- Health Administration

Health and Wellness Track Courses
AMS 435 Introduction tox Epidemiological Research
BIO 345 Pathophysiology
+CON 280 Holistic Health I
+CON 281 Holistic Health II
+CON 283 Healing and Spirituality
+CON 284 Botanical Therapies
+CON 285 Perspectives on Animal-Assisted Therapy
CON 302 Pharmacology
+CON 311 Psychosocial Intervention for Older Adults
CON 352 Nutrition for Physical Performance
CON 435 Death and Dying: Contemporary Issues
\(\left.$$
\begin{array}{lll}\text { CON } & 440 & \text { International Health } \\
\text { CON } & 497 & \text { Substance Use and Abuse: Issues and Policies } \\
\text { EDU } & 210 & \text { Theoretical Foundations of Learning } \\
\text { ITS } & 300 & \text { Ergonomics/Time Study } \\
\text { ITS } & 320 & \begin{array}{l}\text { Occupational Safety and Health } \\
\text { CON }\end{array} 308\end{array}
$$ \begin{array}{l}Professional Communication and Technology Utilization in <br>
<br>

Nursing and the Health Sciences\end{array}\right]\)| +NUR | 590 | Therapeutic Touch |
| :--- | :--- | :--- |
| PSY | 366 | Drugs, Mind and Behavior |
| PSY | 400 | Health Psychology Institute |
| RHF $(2-1.5$ credit courses) |  |  |
| SPM | 350 | Health Promotion Programs |
| SPM | 398 | Independent Study 1-3 cr. |
| SPM | 495 | Clinical Internship |


| Exercise and Nutrition Track Courses |  |  |
| :---: | :--- | :--- |
| CHY | 107 | Chemistry for Health Sciences |
| CHY | $115 / 116$ | Chemistry II w/Lab |
| CHY | $251 / 252$ | Organic Chemistry w/Lab |
| CHY | $253 / 254$ | Organic Chemistry II w/Lab |
| CHY | $461 / 462$ | Biochemistry w/Lab |
| CHY | $463 / 464$ | Biochemistry II w/Lab |
| CON | 302 | Pharmacology |
| CON | 352 | Nutrition for Physical Performance |
| PHY | $101 / 102$ K | Introduction to Physics w/Lab |
| PHY | $111 / 114 \mathrm{~K}$ | Elements of Physics I w/Lab |
| PHY | $112 / 116$ | Elements of Physics II w/Lab |
| SPM | 235 | Lab Techniques in Nutrition and Exercise |
| SPM | 325 | Methods of Resistance Training and Conditioning |
| SPM | 330 | Physiology of Exercise |
| SPM | 375 | Exercise Physiology Practicum |
| SPM | 381 | Kinesiology |
| SPM | 400 | Sports Nutrition Symposium |
| SPM | 430 | Exercise Testing, Assessment and Prescription |
| SPM | 431 | Advanced Exercise Physiology |
| SPM | 435 | Practical Applications of Nutrition |
| SPM | 460 | EKG Interpretation |
| SPM | 485 | Senior Thesis |
| SPM | 495 | Clinical Internship |
|  |  |  |
| Health Administration Track Courses |  |  |
| ITP | 210 | Technical Writing |
| ITP | 230 | Project Management |
| ITP | 350 | Conference Leading |
| ITP | 381 | Human Resource Development in Industry |
| ITS | 320 | Occupational Safety and Health |
| CON | 440 | International Health |
| CON | 308 | Professional Communication and Technology |
|  |  | Utilization in Nursing and the Health Sciences |
| SPM | 350 | Health Promotion Programs |
|  |  |  |

Choose 15-21 credits from the School of Business. Consult with the School of Business to determine requirements for a minor in accounting, business administration, or information management.

Courses with a CON prefix are listed at the end of the College of Nursing and Health Professions section.

## SPM 100 Introduction to Sports Medicine

This course orients the student to the expectations of a baccalaureate education in athletic training, exercise science (majoring in exercise physiology or health fitness), or health sciences. Allied health historical perspectives, education, careers, certification, and professional associations are explored. Educating the students about the structure and progression of the three degrees will be discussed. Outside field experiences will be required. Prerequisite: ALT, EXS, HEF, or HLS student or permission of the Department chair. Cr 3.

## SPM 210 Athletic Training Principles I

An introduction to the principles of prevention, examination, treatment, and reconditioning of physical activity injuries. Lecture and laboratory competencies prepare students for supervised clinical experiences. Completion of 75 clinical observation hours required. Prerequisites: ALT student; SPM 100 ; CON 216; BIO 111 and 112 or SCI 170 K and 171 K , or concurrent; 2.25 cumulative GPA. Corequisite: SPM 211.

Cr 3.

## SPM 211 Protective Taping and Wrapping

An introduction to the principles of taping and wrapping as they pertain to preventative, protective, and post injury situations. In addition, basic skills in stretching will be taught. Lecture information and lab competencies prepare students for supervised clinical experience. Prerequisite: ALT student; Corequisite: SPM 210.

## SPM 230 Psychology of Physical Activity and Sport

Course presents an overview of concepts, theories, principles, and research related to physical activity behavior. Practical application of psychological principles and techniques that help facilitate behavior change will be covered. Prerequisites: ALT, HEF, or HLS major; SPM 100.

Cr 3.

## SPM 235 Lab Techniques in Nutrition and

Exercise
An introduction to those laboratory techniques that are found in the nutritional and exercise sciences. Students will be introduced to the concepts of energy exchange in the human body and the measurement of those exchanges. Emphasis also will be placed on the impact nutritional practices have on human performance and disease. Prerequisites: ALT, EXS, HEF, or HLS major.

Cr 3 .

## SPM 260 Exercise Leadership

An overview of the knowledge, skills, and abilities needed by fitness instructors to plan, implement, and evaluate safe and effective exercise programs. Emphasis is on exercise programs for individuals. Prerequisites: HEF, EXS major; SPM 100 or con-
current; CON 219 or concurrent. 2 credits lecture; 1 credit lab.

Cr 3 .

## SPM 265 Therapeutic Modalities

An exploration of the physical principles, physiological effects, indications, contraindications, safety precautions, and operating procedures of therapeutic modalities. Includes application of modalities in the laboratory setting. Prerequisite: ALT major; SPM 210; PHY 101K, 102K. 2 credits lecture; 1 credit lab.

Cr 3.

## SPM 270 Athletic Training Clinic I

Completion of a minimum of 150 clinical hours applying proficiency knowledge and skills in an athletic training clinical setting. The first clinical course for students enrolled in the athletic training major. Prerequisite: ALT major; SPM 100, SPM 210; SPM 211; SPM 264.

Cr 2.

## SPM 310 Athletic Training Principles II

This is an intermediate study of principles for the prevention, examination, treatment and reconditioning of physical activity injuries. Lecture and laboratory competencies prepare students for supervised clinical experiences. Prerequisites: ALT major; SPM 210, SPM 264; BIO 111 and 112 or SCI 170K and 171 K .2 credits lecture; 1 credit lab. Cr 3.

## SPM 315 Group Exercise Instruction

This course provides knowledge, skills, and practical experience needed to plan, lead, and evaluate a variety of group exercise sessions effectively. Developing and leading various components of group exercise sessions constitute a major part of this course. Prerequisites: EXS, HEF major; SPM 260 . Cr 3 .

## SPM 325 Methods of Resistance Training and Conditioning

Theoretical and practical study of practices and methods involved in developing and implementing resistance training and conditioning programs for clinical and non-clinical populations. Prerequisites: ALT, EXS, HEF, or HLS major; BIO 211 and 212 or SCI 172 and 173; CON 219.

Cr 3.

## SPM 330 Physiology of Exercise

An investigation of the acute and chronic effects exercise incurs on the body. Muscle physiology, respiration, cardiac function, circulation, energy metabolism and application to training will be emphasized and applied in laboratory activities. Prerequisites: ALT, EXS, HEF,or HLS major; CHY 107 or CHY 113 K and 114 K or concurrent; BIO 111 and 112 or SCI 170 K and 171 K ; and BIO 211 and 212 or SCI 172 and 173.2 credits lecture; 1 credit lab.

Cr 3.

## SPM 340 Therapeutic Exercise

A study of the basic components of a comprehensive therapeutic exercise program including functional anatomy, joint mobilizations, and rehabilita-
tion programs will be discussed for the appendicular and axial skeletons. In addition, the physiological effects, safety precautions, indications, contraindications, modes of resistance, and specific rehabilitation protocols will be discussed. Prerequisites: ALT major; SPM 381 or concurrent, SPM 410. Prerequisites may be waived for students in allied health degree programs. 2 credits lecture; 1 credit lab.

Cr 3.

## SPM 350 Health Promotion Programs

This course examines the assessment, planning, implementation, and evaluation of health promotion programs in a variety of settings. Prerequisites: HEF, HLS major. SPM 230; CON 219. Cr 3.

## SPM 370 Athletic Training Clinic II

Completion of a minimum of 150 clinical hours applying proficiency knowledge and skills in an athletic training clinical setting. The second clinical course for students enrolled in the athletic training major. Prerequisite: ALT major; SPM 265, 270, 310. Cr 2.

## SPM 371 Athletic Training Clinic III

Completion of a minimum of 150 clinical hours applying proficiency knowledge and skills in an athletic training clinical setting. The third clinical course for students enrolled in the athletic training major. Prerequisite: ALT major; SPM 370, 410; NUR 209, 210; SPM 381, or concurrent. Cr 2.

## SPM 375 Exercise Physiology Practicum

This introductory field experience emphasizes hands-on practice for students. The course includes an introduction to a variety of experiences such as fitness testing, group fitness leadership, personal training, workplace wellness, and special populations (e.g., cardiac and pulmonary rehabilitation) within USM's Lifeline Center for Wellness and Health Promotion. The student will also have the opportunity to discuss field experiences in a weekly seminar. Prerequisite SPM 235 or concurrent. Cr 3.

## SPM 381 Kinesiology

Structural and functional anatomical analysis of human movement. Course will also incorporate principles of mechanics as they apply to the analysis of human movement. Prerequisites: ALT, EXS, HEF, or HLS major; BIO 211 and 212 or SCI 172 and 173 ; PHY $101 \mathrm{~K}, 102 \mathrm{~K}$.

## SPM 385 Health Fitness Practicum I

This introductory field experience provides opportunity for practical application of knowledge gained through prior coursework in health fitness. The student will assist in the leadership of a wide variety of university-based physical fitness programs, with special emphasis on either fitness center experiences or group exercise instruction. Prerequisites: junior level HEF major; SPM 315; SPM 325 or concurrent. Cr 3.

## SPM 395 Health Fitness Practicum II

Building upon experiences gained from Health

Fitness Practicum I, the student continues assisting in the leadership of university-based physical fitness programs, with emphasis on fitness center experiences or group exercise instruction. Prerequisites: senior level HEF major; SPM 385.

Cr 3 .

## SPM 398 Independent Study

This course is intended to provide majors in the Department of Exercise, Health, and Sport Sciences with an opportunity to pursue a project independently. Students should select a faculty advisor and develop a course proposal with that person. A final written paper is required. Prerequisites: ALT, EXS, HEF, HLS major; junior or senior standing, instructor permission. Cr 1-3.

## SPM 400 Sports Nutrition Symposium

This course will provide students with up-to-date information that addresses the nutritional issues facing today's athletes. National, regional, and local experts will present current scientific information in a practical manner.

Cr 3.

## SPM 410 Athletic Training Principles III

This is an advanced study of principles for the prevention, examination, treatment and reconditioning of physical activity injuries. Lecture and laboratory competencies prepare students for supervised clinical experiences. Prerequisites: ALT major; SPM 310; BIO 211 and 212 or SCI 172 and 173.2 credits lecture; 1 credit lab.

Cr 3.

## SPM 430 Exercise Testing, Assessment, and Prescription

Course focuses on knowledge and skills necessary for assessing health-related components of physical fitness. Course will also focus on prescription and design of programs to develop health-related fitness which will be applied in the laboratory setting. Prerequisites: ALT, EXS, HEF, or HLS major; SPM 330.

Cr 3.

## SPM 431 Advanced Exercise Physiology

An advanced study of the physiological responses and adaptations to exercise related to human performance limitations, training effects, and health related benefits. Emphasis is on human bioenergetics, metabolism, cardiovascular structure and function; and cardiopulmonary responses to exercise will be discussed. Prerequisites: ALT, EXS, HEF, or HLS major; SPM $330 . \quad$ Cr 3.

## SPM 435 Practical Application of Nutrition

An intensive study of the biochemical regulatory mechanisms of energy production and expenditure involved in cellular metabolism. Emphasis will be placed on carbohydrates, protein, and lipid metabolism and the acute and chronic effects that exercise and physical activity have on these systems. Prerequisites: BIO 211, BIO 212, CON 252. Cr 3.

## SPM 450 Exercise for Special Populations

Course focuses on exercise programming guide-
lines and recommendations for a variety of special populations. Prerequisites: ALT, HEF major; SPM 430 or concurrent. Cr 3.

## SPM 460 EKG Interpretation

A clinical, practical study of the physiological and biochemical mechanisms involved in the body's response to certain diseases and pathological situations. Emphasis in both lecture and laboratory activities will be placed on cardiac electrophysiology and the pathophysiology of coronary arteriosclerosis, hypertension, and COPD. Prerequisites: ALT, EXS, or HLS major; BIO 111, BIO 112, BIO 211, BIO 212.

Cr 3.

## SPM 470 Athletic Training Clinic IV

Completion of a minimum of 225 clinical hours applying proficiency, knowledge, and skills in traditional (200 clinical hours) and athletic training and general medical ( 25 clinical hours) settings. Fifty of the traditional setting hours will be completed during the month of August within an athletic pre-season venue. The fourth clinical course for students enrolled in the athletic training major. Prerequisite: ALT major; SPM 330, 340, 371; SPM 430 or concurrent. Cr 3 .

## SPM 480 Organization and Administration of Athletic Training

Administrative components of an athletic training program. Facility design; supply ordering, budget and inventory; insurance, personnel and athletic training educational considerations. Prerequisites: junior or senior level ALT major. Cr 3.

## SPM 481 Fitness Facility Management

An introduction to the management and operation of health fitness facilities. Knowledge and skills needed to plan, lead, manage and evaluate various health fitness programs will be discussed. Prerequisites: senior level HEF major. Cr 3.

## SPM 485 Senior Thesis

A study of the various physiological and biochemical techniques involved in research in exercise physiology. Emphasis will be given to clinical/applied science techniques such as phlebotomy, blood chemistry and metabolic analyses of V02, lactate threshold and cardiac output. Students will be required to conduct a research experiment using learned techniques. Prerequisites: ALT, EXS, or HLS major; SPM 430, 431.

Cr 3.

## SPM 495 Clinical Internship/Co-op

This culminating experience for athletic training, exercise physiology, health fitness and health sciences majors provides the opportunity for students to apply knowledge and skills gained through didactic, practicum, clinical, and laboratory experiences in a work setting. Prerequisites: All ALT, EXS, HEF, or HLS major requirements must be completed. Instructor permission required.

Cr 3-12.

## SPM 499 Athletic Training International Service Learning

This culminating experience for athletic training majors provides the opportunity to apply knowledge and skills gained didactic and clinical experiences in remote villages in the mountains of the Dominican Republic. Prerequisites: SPM 410; instructor permission.

Cr. 3.

## Recreation and Leisure Studies Degree

The Department of Recreation and Leisure Studies in the College of Nursing and Health Professions offers a baccalaureate degree in recreation and leisure studies with a major in therapeutic recreation. In addition, the Department offers a minor in recreation leadership, a minor in nature tourism, and a variety of health/fitness instructional activity courses.

The baccalaureate degree program in recreation and leisure studies consists of 121 credit hours. Upon completion of the degree requirements, the student may seek employment as an activity coordinator, therapeutic recreation specialist, or recreation generalist. Students who complete internships under the supervision of a Certified Therapeutic Recreation Specialist will be eligible to sit for the National Council for Therapeutic Recreation Certification examination.

The minor in recreation leadership consists of 20 credit hours. The minor is designed to provide students who are not majoring in recreation and leisure studies with the basic knowledge and skills needed to lead recreation programs in settings such as YMCAs, community recreation centers, and camps.

The minor in nature tourism consists of 19 to 20 credit hours. This minor combines coursework in environmental science and outdoor recreation to provide students with an introductory knowledge of ecotourism, outdoor recreation leadership, and nature interpretation.

In addition to the degree programs and minors, a wide variety of leisure studies courses, as well as health fitness activity courses, is available. Students are encouraged to pursue recreation, leisure, and instructional health/fitness course offerings as appropriate to their academic program, or their personal development needs.

## Transfer into the B.S. Degree Program in Recreation and Leisure Studies from other USM Academic Programs

Students enrolled in other USM programs of study must meet with the Department chairperson to discuss transfer requirements and their reasons for transfer. Such students should have completed REC 110, REC 121, ENG 100C, PSY 101 J , and BIO 111 or equivalent with grades of C- or better. Acceptance into the program is also dependent on reasons for transfer and space availability.

## Baccalaureate Degree Program in Recreation and Leisure Studies

In satisfying Core curriculum requirements, students are required to take PSY 101J and HRD 200J to fulfill their social sciences requirement. BIO 111/112 are required for the natural sciences requirement.

The four-year program in recreation and leisure studies consists of, in addition to the Core curriculum requirements, the following courses leading to the bachelor of science degree. The curriculum is subject to change as a result of faculty evaluation.

Required Recreation Core Courses ( 42 cr ) Credits
CON 216 Emergency Response 3
REC 110 Foundations of Recreation and Leisure Studies 3
REC 121 Introduction to Therapeutic Recreation Services 3
REC 225 Therapeutic Recreation Analysis and Technology 3
REC 332 Methods in Therapeutic Recreation Program Design 3
REC 241 Recreation Leadership 3
$\begin{array}{lll}\text { REC } & 353 & \begin{array}{l}\text { Implications of Disabling Conditions for Therapeutic } \\ \text { Recreation }\end{array}\end{array}$
REC 382 Therapeutic Recreation Interventions and Protocols 3
$\begin{array}{lll}\text { REC } 494 & \begin{array}{l}\text { Professional Foundations of Therapeutic Recreation } \\ \text { Practice }\end{array} & 3\end{array}$
REC 495 Internship 12
$\begin{array}{lll}\text { REC } & 498 & \begin{array}{l}\text { Management and Supervision in Therapeutic } \\ \text { Recreation }\end{array}\end{array}$
Leisure Studies Electives (3 cr)
REC 224 Inclusive Leisure Services 3
CON 311 Psychosocial Interventions for Older Adults 3
REC 314 Leisure Education and Counseling 3
Health/Fitness Electives ( 3 cr )
CON 219 Lifetime Physical Fitness and Wellness 3
$\left.\begin{array}{lll}\text { RHF } & \text { XXX } & \begin{array}{l}\text { Two 1.5-credit health/fitness courses such as Aerobics, } \\ \text { Yoga, Beginning Weight Training, Self Defense, or }\end{array} \\ \text { Adapted Aquatics Laboratory }\end{array}\right]$

## Minor in Recreation Leadership

The minor in recreation leadership is designed to provide students with the basic knowledge and skills necessary to lead recreation programs in setting such as YMCAs, Boys and Girls Clubs, community recreation centers, and camps. The minor is especially appropriate for those students majoring in fields such as education, psychology, nursing, criminology, business, and social work who intend to use recreation activities as part of their practices. The minimum number of credits required for the minor is 20 .

Students seeking the minor in recreation leadership must:

1. Complete REC 110 Introduction to Recreation and Leisure, REC 241 Recreation Leadership, and REC 224 Inclusive Leisure Services (9 credits total).
2. Complete three of the following courses: REC 225 Recreation Analysis and Technology, REC 226 Lifetime Leisure Activities, REC 231 Arts and Crafts Programming and Leadership, REC 233 Outdoor Recreation, CON 311 Psychosocial Interventions for Older Adults, REC 314 Leisure Education and Counseling, or REC 367 Adventure Based Counseling ( 9 credits total).
3. Complete two 1 -credit or 1.5 -credit RHF courses from the following: RHF 106 Ballroom Dance, RHF 107 Aerobics, RHF 109 Beginning Weight Training, RHF 118 Yoga, RHF 122 Aerobic Kickboxing, RHF 121 Self Defense, or RHF 123 Introduction to Sea Kayaking.
Not all courses are offered every semester. Some courses have prerequisites. Other RHF courses can be substituted with permission. Contact the Recreation and Leisure Studies Department chairperson to sign up for this minor.

## Minor in Nature Tourism

The nature tourism minor is jointly offered by the Department of Recreation and Leisure Studies, the College of Nursing and Health Professions, and the Department of Environmental Science in the School of Applied Science, Engineering, and Technology. The minor combines coursework to provide students with an introductory knowledge of ecotourism, outdoor recreation leadership, and nature interpreta-
tion. Safe and responsible use of outdoor environments is a prime focus of the minor. Enrollment in the nature tourism minor can increase student understanding and enjoyment of nature while enhancing future employment opportunities in ecotourism and adventure recreation businesses, wilderness equipment outfitters, or organizations that focus on environmental education. The minor is open to undergraduate students* and requires the completion of 19 to 20credit hours of coursework.

Students seeking the minor in nature tourism must complete the following courses: Required Courses (16 credits) Credits
ESP 110 Introduction to Nature Tourism 3
ESP 101K/
102K Fundamentals of Environmental Science with Lab 4
REC 233 Outdoor Recreation 3
ESP 445 Environmental Education and Interpretation 3
REC 218 Wilderness Emergency Response 3
Elective Courses (3-4 credits)
ESP 101/102 Fundamentals of Environmental Science (with lab) 4
ESP 150 Environmental Science Field Immersion 3
REC 234 Outdoor Recreation Leadership 3
Not all classes are offered every semester. Some courses may have prerequisites.
*Recreation and leisure studies majors can only substitute REC 218 Wilderness Emergency Response for CON 216 Emergency Response if they are enrolled in the nature tourism minor and have completed either ESP 110 or ESP 101 K and 102 K. In addition, recreation and leisure studies majors may not take REC 234 Outdoor Recreation Leadership as a REC general elective. This course may be taken in addition to the requirements of their degree.

## Retention/Progression Policies

The Department of Recreation and Leisure Studies adheres to the minimum grade and academic suspension standards described in the Academic Policies section of this catalog. In addition the faculty reserves the privilege of retaining only those students who, in the judgment of the faculty, satisfy the requirements of scholarship, skill, and health necessary for practice as therapeutic recreation specialists or therapeutic recreation assistants. A student who admits to or is found guilty of a violation of academic integrity (see USM Student Academic Integrity Policy) or the National Therapeutic Recreation Society's Code of Ethics can be suspended or dismissed from the program or the University. (The ethics statement is posted in the Department's reception area, is discussed in REC 494, and is available in the Department chairperson's office.)

A grade of D or F in a REC-prefix core course will stop progression within the respective degree course sequence. Students who receive a grade of D or F in any REC-prefix core course must repeat the course and earn a grade of C- or better. Students who receive a grade of D or F in REC 495, will be allowed to repeat the course once, providing that the student is able to secure an internship placement and the faculty agrees that the student possesses the knowledge, skills, and health necessary to work with clients in an internship setting. Students who repeat Internship must enroll in the appropriate pre-internship course the semester immediately preceding Internship. Students who receive a D or F in a Department theory or clinical course must obtain a grade of C - or better when the course is repeated. Students who fail to enroll in therapeutic recreation courses for a one-year period without permission of their academic advisors can be removed from their declared major.

## Internship Policies

Policies regarding internship are specified in the Department's Student Internship Manual. Internship eligibility requirements are as follows:
B.S. Degree In order to be eligible for the REC 495 Internship placement, baccalaureate degree students must be recreation and leisure studies majors, have completed at least 24 credits from the Core curriculum, plus all of the program's required foundation courses. Students must also possess current Red Cross Emergency Response and CPR certifications, have a grade point average of at least 2.0 and have completed the following major courses: REC 110, REC 121, REC 225, REC 241,

REC 332, REC 353, REC 382, REC 494, a health/fitness elective; a recreation leadership elective, and a leisure studies elective. Students wishing to complete an internship outside of the faculty's direct supervision area (approximately a 120-mile radius from USM) must have a GPA of at least 2.6. Internship opportunities extend throughout New England and beyond. Students must apply to agencies and be accepted by an agency for internship. Internships are earned, not assigned. The Department cannot guarantee that students will be able to obtain internships in the southern Maine area.

Course Fees
A course fee is assessed in Emergency Response (CON 216), Arts and Crafts Programming and Leadership (REC 231), Adventure Based Counseling (REC 367) and selected RHF courses.

Courses with a CON prefix are listed at the end of the College of Nursing and Health Professions section.

## RHF 100-Level Recreation/Fitness Courses

RHF courses are designed to provide education and skill development in a particular recreation or health/fitness activity. Because skill and/or fitness development are objectives in all RHF courses, students must attend and participate in class activities in order to pass. The Department reserves the right to request written medical clearance for participation in courses that require high intensity exercise. An * after a course number indicates that students will be required to pay a vendor charge for access to activity environments and/or equipment. The course instructor will explain any charge. The following are the RHF activity areas: RHF 101 Tennis; RHF 106 Ballroom Dance; RHF 107 Aerobics; RHF 109 Beginning Weight Training; ; RHF 117 Low Impact Aerobics; RHF 118 Yoga; RHF 121 Self-Defense; RHF 122 Aerobic Kickboxing; RHF 126 Stability and PhysioBall Exercise; and RHF 127 Pilates. Cr 1.5 each.

## RHF 123 Introduction to Sea Kayaking and Introduction to Cross-Country Skiing Cr 1 each.

## REC 110 Foundations of Recreation and Leisure Studies

This course addresses the concepts of leisure, play, and recreation, emphasizing the role leisure should play in modern society. Lectures and discussions on societal attitudes toward work and leisure stresses the need to keep these in proper perspective. Students will concentrate on the psychological aspects of optimal experience and quality of life. Community leisure services will be addressed. Assignments will encourage students to explore leisure lifestyle attitudes.

Cr 3.

## REC 121 Introduction to Therapeutic Recreation Services

An overview of therapeutic recreation including historical and philosophical foundations, service models, professional functions and service settings. The psychology of disability will be included as will an introduction to disabling conditions. Prerequisite: therapeutic recreation major or instructor permission.

Cr 3.

## REC 123/ESP 110

This course covers the basics of nature tourism, a broad category that covers ecotourism, adventure tourism, and a variety of activities and programs involving the outdoors. An emphasis is placed on Maine and northern New England nature tourism. REC 123/ESP 110 is one of the required courses for the nature tourism minor offered jointly between the Department of Recreation and Leisure Studies and the Department of Environmental Science. Cr 3.

## REC 218 Wilderness Emergency Response

This course prepares students to stabilize and care for
victims of medical emergencies in remote and wilderness area settings when advanced medical professionals are not readily available. The course is a requirement for students enrolled in the nature tourism minor. Students who successfully complete the course will qualify for certification by the American Red Cross in Wilderness Emergency Response and CPR for the Professional Rescuer.

Cr 3.

## REC 224 Inclusive Leisure Services

This course will explore how to include persons with disabilities into non-treatment-based leisure services. Topics including disability awareness and history, stigma, barriers to participation, access legislation, inclusion strategies, and administrative concerns, such as the development of mission statements, needs assessments, staff training, and marketing. Special recreation services will also be addressed. Prerequisite: REC 110 or instructor permission. Cr 3.

## REC 225 Therapeutic Recreation Analysis and Technology

This course examines the role of activities in therapeutic recreation as well as methods that can be used to analyze the therapeutic potential of recreation activities relative to functional behavior change. The structure and role of leisure education activities will be examined as will the roles of legislation and assistive technology in providing access to recreation activities. A variety of recreation assistive devices and services will be studied. Prerequisite: REC 110 or instructor permission.

Cr 3.

## REC 226 Lifetime Leisure Activities

Through participation in a variety of recreational pursuits, students will explore the rules, techniques, strategies, and adaptations for successful participation by those individuals with disabilities. Leadership techniques for teaching physical recreation activities and basic motor learning concepts will also be addressed.

Cr 3.

## REC 229 Adapted Aquatics Laboratory

This course introduces students to the therapeutic medium of water as it is used to promote the physical, psychological, and social well-being for persons with disabilities. The lab will require students to participate in a community-based adapted aquatics program under the supervision of a therapeutic recreation, adapted aquatics specialist. Students will be given a general introduction to the disabilities presented by program participants and will be required to learn and apply adapted aquatics assessments, skills, and program management knowledge. Each student will negotiate, with the instructor, the aquatics program that will be attended. The lab will require approximately two hours on site per week. Prerequisites: REC 225 or instructor permission, plus passage of basic swimming skills and lifting tests. Cr 1.

## REC 231 Arts and Crafts Programming and Leadership <br> Students will learn about the therapeutic benefits of

art and craft activities and how to plan, adapt, organize, and lead crafts programs and activities. The course will require students to participate in a variety of craft activities such as leatherwork, weaving, quilting, sand painting, and other appropriate projects. Prerequisite: REC 110 or instructor permission.

Cr 3.

## REC 233 Outdoor Recreation

This course focuses on safe, sustainable, naturebased recreation with an emphasis on "leave no trace" principles. The role of park systems and wilderness environments relative to recreation in modern society will be examined. A variety of outdoor recreation activities will be introduced. Several class trips will be required; thus students must be prepared to pay charges (a total of no more than $\$ 20$ ) for access to outdoor activity environments and equipment.

Cr 3.

## REC 234 Outdoor Recreation Leadership

This course examines outdoor leadership as a vocation and focuses on the environmental planning, implementation, and risk management knowledge and skills needed to lead outdoor trips and activities competently. Students will assist the REC 233 instructor in leading outdoor activities. Students may also be required to take part in a class planned overnight trip. Prerequisites: REC 233, nature tourism minor, and/or instructor permission. Cr 3.

## REC 241 Recreation Leadership

This course will provide students with the basic knowledge and methods necessary for effective leadership in recreation settings. Students will be required to participate in projects, presentations, and discussions which are aimed at helping them develop and analyze leadership skills in a variety of recreation program areas such as special events, expressive arts, passive recreation, outdoor recreation, and sports. Prerequisites: therapeutic recreation major and REC 110 or instructor permission. Cr 3.

## REC 295 Internship

Students work as therapeutic recreation assistants under the supervision of an appropriately certified therapeutic recreation leader in a university approved agency which provides therapeutic recreation services. A faculty member will work with the agency supervisor to coordinate the student's educational experiences. Students will be required to participate in some on campus classroom sessions to process their internship experiences. Prerequisite: REC 294 taken immediately prior to Internship. Health insurance is required for students enrolled in this course.

Cr 6.

## REC 314 Leisure Education and Counseling

The intent of this course is for students to learn how to help people plan for and find enjoyment in leisure. Theories and techniques of counseling will be included. Students will learn how to help clients identify barriers and to assess their values, attitudes,
and interests as they relate to their leisure behavior. Students will be expected to work on projects in small groups. Prerequisite: majors only or permission of the instructor.

Cr 3.

## REC 332 Methods in Therapeutic Recreation Program Design

Using a systems approach to therapeutic recreation program development, students will learn how to develop group-oriented treatment and educational programs. Leisure assessment, documentation, and individualized treatment plan development will be introduced. Students will be required to meet together outside of class to work on group program development projects. Prerequisites: REC 121, REC 225, majors only.

Cr 3 .

## REC 353 Implications of Disabling Conditions for Therapeutic Recreation

This course provides an overview of physical and developmental disabilities with emphasis on etiology, clinical descriptors, rehabilitation, and educational concerns. Examination of the impact of disability on leisure and therapeutic recreation programming will be addressed, as will barriers that affect communication and interactions between persons with and without disabilities. Prerequisite: REC 225.

Cr 3.

## REC 367 Adventure Based Counseling

The course focuses on how to facilitate and then process outdoor/adventure/recreation activities as a means to improve self-concepts, develop group cohesion and uncover feelings, among others. Course objectives will be met through experiential as well as theoretical methods, thus allowing the student to acquire the skills necessary to lead groups through similar activities. Class format will be lectures, discussions, group activities, and presentations by class members. The course will address how to plan, implement, lead, debrief, and evaluate adventure experiences. Prerequisite: REC 241.Cr 3.

## REC 382 Therapeutic Recreation Interventions and Protocols

This course examines therapeutic recreation services in a variety of habilitation and rehabilitation settings. Emphasis will be on functional assessment, individual treatment planning, intervention strategies, and the development of diagnostic and treatment protocols. Students will be required to work in groups and participate in class leadership. A 24-hour practicum experience at an outside treatment facility is required. Prerequisites: REC 332, PSY 333, HRD 200J and SWO 388 or CON 497 and recreation and leisure studies major or instructor permission.

Cr 3.

## REC 398 Independent Study

This course is open only to students majoring in therapeutic recreation who have identified a topic, relevant to their major, that they want to study in depth. Students must obtain a faculty supervisor and
negotiate a written independent study contract with this person. Independent study forms can be obtained from the Department. $\mathrm{Cr} 1-3$.

REC 494 Professional Foundations of Therapeutic Recreation Practice
This course will prepare students for an extended internship experience. Students will complete all of the tasks necessary to secure an internship placement. Serious study and discussion of topics such as professional conduct, ethics, safety, and risk management will be required. This course must be taken immediately prior to Internship. Prerequisites: Recreation core courses and instructor's permission. Cr 3.

## REC 495 Internship

Students are required to work a minimum of 490 hours in an agency that provides therapeutic recreation services. During this period the students will apply the knowledge, methods, and leadership techniques which
have been learned in academic courses. Students will be directly supervised by qualified agency personnel and indirectly supervised by faculty. This course is usually taken the senior year. Prerequisites: REC 494 and instructor's permission. Health insurance is required of students enrolled in this course.

Cr 12.

## REC 498 Management and Supervision in Therapeutic Recreation

An overview of management roles in therapeutic recreation settings with major focuses on comprehensive program development, supervision of professional and volunteer personnel, policy and strategy development and quality assurance. Each student is required to develop a comprehensive program and policy manual. Students will apply the information learned during internships to course assignments and discussions. Prerequisite: REC 495.

Cr 3.

## College of Nursing and Health Professions CON Courses <br> CON 216 Emergency Response

This course will cover the topics prescribed by the American Red Cross in their emergency response course, including respiratory and cardiac emergencies, wounds, poisoning, sudden illness, burns and other topics. Successful completion of the course requirements will lead to Emergency Response certification, including adult, child, and infant CPR, from the American Red Cross.

Cr 3.

## CON 219 Lifetime Physical Fitness and Wellness

The primary emphasis of this course is to teach students how to take control of their personal health and lifestyle habits. Major areas will include nutrition/weight management, fitness training techniques, flexibility, coronary risk factor management, muscular strength/endurance, stress management, and other wellness-related topics. Class content will include readings, discussions, self-assessment activities, and development of personalized nutrition and physical activity plans.

Cr 3.

## CON 252 Human Nutrition

This course examines the basic concepts of human nutrition and their application to the needs of human beings throughout the life cycle. Discussion of factors affecting food practices and attitudes is included. Prerequisites: BIO 211 or SCI $172 . \quad$ Cr 3.

## CON 270 Holistic Approaches to Reproductive Health

This course will enable the student to look critically at reproductive health options through the lifespan. Through readings, podcasts, PowerPoint presentations, and online discussions, we will weigh evidence related to alternative, complementary, and natural approaches to managing reproductive health issues. The course will follow a life span, growth and development approach. Course topics will include natural family planning methods, holistic contraception, infertility and pregnancy issues, holistic birth support skills, and holistic care of the newborn after birth. In addition, adult reproductive issues will be covered including menopause, erectile dysfunction, and sexuality in aging. The student will participate online via the discussion board, online quizzes, short essays, and complete an assignment to create a holistic teaching page related to a reproductive health topic. Offered during Summer Session as an online course. Cr 3.

## CON 280 Holistic Health I

This course explores the many facets of holistic health. Emphasizing the integration of body, mind, and spirit, specific techniques and therapies will be introduced including, but not limited to, nutrition,
stress management, meditation, therapeutic movement and massage, music, and others. The primary goal is to bring greater self-confidence, increased knowledge, and self-responsibility about health into each student's life.

Cr 3.

## CON 281 Holistic Health II

This course explores the realm of holistic health in greater depth. A strong component will focus on approaches to healing, including such topics as nutrition, meditation, creative imagery, crystals, and herbal remedies. Spiritual and metaphysical dimensions will be integrated as they relate to the total well-being of the individual. The primary goal is to become conversant with holistic approaches that are widely used in promoting and supporting self-healing in both self and others. Prerequisite: CON 280 or permission of instructor.

Cr 3.

## CON 283 Healing and Spirituality

This course will explore the links between spiritual understandings and physical and mental health. Focusing on global spiritual and religious traditions, the course will examine the determinants of health and the healing techniques utilized in each faith. We will also examine the ways in which religious values and expectations become internalized and affect the ways in which we interpret our wellness and our discomforts. This course is designed to offer an opportunity to become familiar with the world's faith traditions, and to explore spirituality as it relates to healing, both personally and institutionally. Cr 3.

## CON 284 Botanical Therapies

The use of medicinal plant remedies can offer a rich, effective, and safe addition to health care for a variety of common illnesses and conditions. With dramatic increase in use of herbal preparations, however, questions of effectiveness and safety arise for both health care consumers and their providers. This course will give the historical background on the use of medicinal plants in the U.S. and Europe, examine the current legal status of plant remedies and herbal practitioners, review the most commonly used botanical remedies available, and discuss the benefits and risks that attend the use of these and other medicinal plant preparations. Cr 3.

## CON 285 Perspectives on Animal-Assisted Therapy

This course explores the role of pets and other animals in contemporary society with a special emphasis on understanding the role animals may play in the treatment/rehabilitation of persons with a variety of physical and psychological disabilities. Lectures, discussions, guest speakers, and a variety of $\mathrm{A} / \mathrm{V}$ materials will be utilized to meet course objectives. Cr 3 .

## CON 288 Reiki: Energy Medicine

This class will provide the student with Reiki Level I and II certification. Reiki is an ancient form of healing from Tibet. Rei means universal life, Ki means energy. Reiki means life for energy and is based on the idea that we are energy. Reiki is a hands-on, light touch, healing energy. Many healthcare organizations are interested in alternative or complementary approaches to care and are offering services such as Reiki to help decrease pain, anxiety, depression, and aid in the comfort and well-being of their clients. To provide these services there are additional training and certifications required. The class will combine both lecture and hands-on experiences. In addition, the class will engage in service learning by providing Reiki treatments to the community.

Cr 3.

## CON 302 Pharmacology

This course provides an overview of the principles of pharmacokinetics and pharmacodynamics. The major drug categories are reviewed with emphasis placed on the therapeutic use, action, and adverse reactions of selected prototype drugs. Emphasis is placed on the benefits and risks of drug therapy, thereby preparing the health professional for safe, therapeutic pharmacologic interventions. There is no clinical component to CON 302. For nursing majors, must precede NUR 323/325, but must be taken within one year. Prerequisites: BIO 211 or SCI 172 and sophomore standing.

Cr 3 .

## CON 308 Professional Communication and Technology Utilization in Nursing and the Health Sciences

This course emphasizes a critical examination of how technology and communication can enhance the understanding of the historical development of the profession of nursing. Students explore professional development in nursing theory, using written and oral communication skills and learn to present information effectively using a variety of sources and techniques. To achieve this objective, the course will introduce APA style of referencing; review basic tenets of good writing style; present information access and utilization skills through library computer searches; explore basic computer skills such as e-mail, listserv membership, Internet searching and critique; and support the development of public presentation skills through the use of presentation software.

Cr 3.

## CON 311 Psychosocial Interventions for Older Adults

This course will explore the normal aging process in addition to a variety of chronic conditions experienced by older adults. The focus of the course will be on non-pharmacological intervention strategies for older adults residing in community and clinical agencies. Intervention examples include stress management, animal-assisted therapy, storytelling, autobiographical writing, bibliotherapy, adventurebased activities, air mat therapy, and "simple pleas-
ures" activities. Other topics of study will include attitudes, stereotypes, and social issues that affect older adults today. Off-campus service learning experiences will be expected along with in-class discussions.

Cr 3.

## CON 321/322W Health-Related Research

Introduction to health-related research with an emphasis on understanding the research process and becoming a consumer of research. Critique of health-related research findings to health professions and their application to professional practice is a major component of this course. CON 322 is a Writing Intensive course. For nursing majors, must be completed before taking any 400 -level nursing course. Prerequisite or concurrent: PSY 201D or MAT 120D.

## CON 352 Nutrition for Physical Performance

The in-depth study of general nutritional practices applied to athletes and other individuals who are physically active. The course will emphasize basic cellular metabolism as it relates to energy production and expenditure during the course of preparation and training for athletics and physical activity. Weight control, use of ergogenic aids and nutritional supplements will also be discussed. Prerequisites: ALT, EXS, HEF major; CON 252; SPM 330 or concurrent.

Cr 3.

## CON 356 Concepts in Community Health

This course introduces the concepts and principles basic to the development and maintenance of the community's health. The epidemiological process guides the survey of current major health issues. The course focuses on the health issues of groups in the community at local, state, national, and global levels.

Cr 3 .

## CON 435 Death and Dying: Contemporary <br> Issues

This course focuses on dying, death, and bereavement in contemporary Western society within the context of theory, research, and practice. Issues around sudden death and dying from a chronic and/or terminal illness will be explored. Selected topics include cardiopulmonary resuscitation, palliative and hospice care, pain and symptom management, physician assisted suicide, family caregiving at the end of life, advance care planning, pregnancy loss, and the death of a child. Normal grief will be differentiated from pathological or traumatic grief. Finally, the continuum of services (e.g., support groups, psycho-educational groups, Internet chat groups) that are available for bereaved persons will be explored.

Cr 3.

## CON 440 International Health

This is a multi-disciplinary elective course which presents multiple perspectives on improving the health of populations in the interconnected global environment.

Cr 3

## CON 490 Therapeutic Touch

This course will introduce the theory and practice of the Krieger-Kunz method of Therapeutic Touch. Concentration will be on the practice of Therapeutic Touch as an intentionally directed process of energy exchange, using the hands to facilitate the movement of energy, and restoring balance to the energy system of the human body. The course will focus on the understanding of the basic principles of the human energy field; intuition; intentionality; benefits; theory; principles; process; and experiential learning of the Therapeutic Touch technique. Through readings, lecture, demonstrations, and practice, students will integrate the TT process with considerations of creating a healing environment, the ethics of practice, and integrating holistic health and self-care.

Cr 3 .

CON 497 Substance Use and Abuse: Issues and Policies
This course is an interdisciplinary examination and study of issues and policies surrounding alcohol and other drugs. Emphasis is placed on epidemiology; pharmacology; theoretical models; strategies for prevention, treatment, and relapse prevention; needs of special populations; and ethical, legal, and sociopolitical aspects surrounding addiction. Cr 3.

# Lewiston-Auburn College 

Dean: Joyce T. Gibson, 51 Westminster Street, Lewiston; Associate Dean of Community Relations/Learning Works: Phillips; Chair: Black; Professors: Black, Druker, Harris, Hitchcock, Raimon, Schaible; Associate Professors: Caron, Cleary, Coste, Hammer, Levine, Mundhenk, Nemeroff, Robinson, Rodrigue, Whitaker, White; Assistant Professors: Conklin-Powers, Marsh, Silber, Stasko, Turesky, Vazquez-Jacobus, Winston; Instructors: Nowinski; Clinical Instructor: Clark; Adjunct Faculty: Makas

Lewiston-Auburn College (LAC) has several distinguishing characteristics: interdisciplinary majors, student-centered learning, a "community" atmosphere, and a deep sense of responsibility about its role in meeting regional needs. Faculty and staff are dedicated to a process of engaging students in a transformative process in which self-awareness, content knowledge, relevant skills, and career development are merged in such a way that lifelong learning is an expectation, not a goal.

The curriculum is marked by integration not only among the various disciplines within the liberal arts, but also between the liberal arts and the professional concentrations, between professional concentrations and the workplace, and between the College and the community. The faculty believes that learning is a shared experience between students and faculty. The interdisciplinary learning focuses on communication, teamwork, writing, fieldwork, critical thinking, civic engagement, and leadership, and uses service learning, career seminars, and internships to help students apply, synthesize, and integrate their learning.

Lewiston-Auburn College's interdisciplinary majors include B.A. degrees in arts and humanities, natural and applied sciences, and social and behavioral sciences, and a B.S. degree in leadership and organizational studies. In addition, the College offers master's degrees in occupational therapy and leadership studies. Students wishing to enter the field of nursing may take advantage of a nursing major aligned with USM's Portland-based College of Nursing and Health Professions offered in its entirety at the Lewiston campus. The B.S. degree in industrial technology is extended from the School of Applied Science, Engineering, and Technology, and a master's degree in literacy education is offered by the College of Education and Human Development, while a minor in women's studies and a certificate program in English as a Second Language (ESL) are also extended from the other campuses.

## Graduation Requirements

To be eligible for graduation with a baccalaureate degree and major, students must have successfully completed 120 credit hours including all Core and major requirements, at least 30 credit hours in 300- to 400 -level USM courses offered by Lewiston-Auburn College, and have obtained a minimum grade point average of 2.0 in the major. Graduation requirements for extended degree programs can be found under their respective academic colleges.

## Transfer Policies

USM's Lewiston-Auburn College works with all University of Maine System campuses and Maine Community Colleges, and Central Maine Medical Center (CMMC) to enable students who have received associate's degrees from these institutions to continue their education toward a baccalaureate degree from the University of Southern Maine. In most cases credits transfer directly into the baccalaureate programs. It is important for students to be aware of the transfer policy that applies to their particular situation.

Students matriculated into USM's baccalaureate programs will receive transfer credit for all undergraduate courses successfully completed at another University of Maine System institution. Transfer credits also may be awarded for courses completed at other regionally accredited institutions.

## The Common Core

In fall 2007, a new Common Core curriculum was implemented that is designed to foster the learning students need to engage effectively in their personal and civic lives and to be successful in their chosen careers. This common course of study provides students opportunities to strengthen their abilities to speak and write thoughtfully and clearly; to find, evaluate, and utilize information; and to think through
complex questions in light of their social, cultural, and historical contexts. The curriculum also helps students articulate their values and aspirations, connect their academic study to their personal lives and career choices, and cultivate the habits of mind and heart needed to live lives guided by a sense of social responsibility and ethical citizenship.

The Common Core curriculum is centered upon the question, "How, then, shall we live?" set within the context of our 21st-century lives. Students will consider the themes of justice, sustainability, democracy, and difference in different ways and in differing contexts over their entire course of study at LAC. Designed according to the University's guidelines for general education, the curriculum integrates the learning experiences in the majors with liberal arts learning in the Common Core. It provides learning experiences that build upon and relate to each other in a cumulative and sequential manner. The curriculum is organized into a three-phased sequence, with each successive phase focused upon the development and refinement of the student abilities mentioned above. Required courses in writing instruction, for example, occur at successive phases of the curriculum rather than only at the beginning phase. To help students become intentional about their learning, they are required to participate in and reflect upon co-curricular as well as curricular experiences.

| Entry Phase |  |  | Credits |
| :---: | :---: | :---: | :---: |
| LCC | 100 | Profiles, Proficiencies, Portfolios (required of all students) |  |
| LCC | 110C | College Writing: Language and Literacies, or |  |
| LCC | 111C | College Writing: Language and Literacies: Enrichment |  |
| LCC/ | CI 130K | The Biology of Human Health w/Lab |  |
| LCC | 150D | Statistics for Informed Decision Making |  |
| LCC | 200EW | Creative Critical Inquiry into Modern Life (writing instruction) |  |
| LCC | 220I | U.S. Democracy: Origins \& Development |  |
| SCI | 230K | Environmental Science, Policy, and Sustainability w/Lab |  |
| LCC | 250G | Thinking about The Arts, Thinking Through The Arts |  |

Middle Phase Credits
LCC 310J Science, Technology and Society 3
LCC 320 Sustaining Democracy 3
$\begin{array}{llll}\text { LCC } & 340 & \text { Exploring Careers, Choosing Life Roles } & 1\end{array}$
LCC 350I Global Past and Present 3
LCC 370EW Toward a Global Ethics (writing instruction) 4
Capstone Phase Credits
LCC 400 Finding Your Calling 1
LCC 410 Aesthetic and Political Dimensions of Language 3
LCC 430 Place and Community 3
LCC 450 Internship 3
$\begin{array}{llll}\text { LCC } & 480 & \text { Senior Seminar (writing instruction) } & 3\end{array}$
LCC 490 Portfolio Presentation 1

## LCC 100 Profiles, Proficiencies, Portfolios

This course engages students in personal assessment and goal setting. It introduces students to LAC's interdisciplinary, writing-intensive, and stu-dent-learning centered culture. Students link their own stories (what has brought them to this point in their personal, academic, and professional lives) with resources needed for success in college, career, and global citizenship. Students will demonstrate their learning by creating an e-portfolio. Cr 1.

## LCC 110C College Writing: Language and Literacies

This entry-phase, first-tier writing instruction course introduces students to one or more themes of the Core curriculum. It emphasizes the connections between reading and writing, and students learn how thinking and the language that conveys it develop and change through the process of drafting, revising, editing, and proofreading. The course introduces students to the conventions of expository academic writing and links to co-curricular activities of the Core. (Note that some students are also required to concurrently take the 1 -credit companion course, LCC 111C.)

Cr 3.

## LCC 111C College Writing: Language and Literacies: Enrichment

This course represents an alternative for any student who would otherwise choose LCC 110 C ; it is required for those students identified as needing extra support to improve their writing skills. The additional one extra hour per week included in this course (in addition to the same two-and-one-half hours/week in LCC 110C) is designed to expand and refine basic writing skills integral to the course objectives of LCC 110C College Writing. The course provides additional instruction and extended opportunities for applying pre-writing, drafting/developing, revising, and editing strategies related to the same essays assigned in LCC 110C. Course focus includes attention to basic elements of effective writing, such as unity, coherence, and emphasis. Class time will also be devoted to addressing topics that represent the most common error patterns in college-level academic writing, such as weak thesis sentences, inconsistent point of view, and sentence-level grammar and punctuation error patterns.

Cr 4.

## LCC/SCI 130K The Biology of Human Health With Lab

This course introduces basic concepts of biology and explores how these concepts relate to human health. It also explores natural scientific methods of inquiry and applies these methods to complex issues involving the creation and maintenance of human health. Further, the course explores the importance of societal factors in health maintenance. Cr 4.

## LCC 150D Statistics for Informed Decision Making

This course introduces and applies quantitative analyses to address real world questions. It applies
descriptive statistics, sampling and significance testing, correlation, and regression analysis to issues related to the four themes of the Core. The course provides the opportunity to interpret and analyze statistical decision making, and identifies data misconceptions and misuses.

Cr 3.

## LCC 200E/W Creative Critical Inquiry into Modern Life

This writing instruction course introduces students to criteria for identifying and constructing well-reasoned arguments, fosters the discovery and use of students' critical/analytical voice in their writing, and develops skills for incorporating, interpreting and integrating the views of others. It provides the opportunity to refine critical thinking abilities by analyzing everyday life experience, including how culture shapes our sense of reality and ourselves. The course highlights the importance of generating good questions and tolerating ambiguity when seeking to understand complex issues. Prerequisite: Core Area "C."

Cr 4 .

## LCC 220 I U.S. Democracy: Origins and Development

In this course, students consider the convergence of cultures, events, and ideas that led to the founding of the United States as a republic up to 1877. The course explores the basic structure of the U.S. system of government, the primary political philosophies that undergird it, and past efforts made to remedy injustices that ran counter to the ideals of democracy.

Cr 3.
LCC/SCI 230K Environmental Science, Policy, and Sustainability with Lab
This course presents a multidisciplinary survey of the scientific principles underlying energy utilization, nutrient cycles, global warming, population, and natural resource policy and management. The lectures will be comprised of Socratic interactions and group discussions relating regional, national, and global components that encompass ecology, economics, politics, and social endeavors. This course includes a laboratory involving field and lab work and service learning efforts.

Cr 4.

## LCC 250G Thinking about the Arts, Thinking through the Arts

This course explores the tools and strategies important in the interpretation of literature and the arts and encourages an appreciation of the role of literature and the arts in social, political, and cultural life. It promotes understanding of and appreciation for the creative expression of shared cultural beliefs in various historical periods of cultures around the world and examines literature and the arts as potential critiques of culture. Co-curricular opportunities are included, especially in connection or conjunction with the Atrium Gallery.

Cr 3.
LCC 310J Science, Technology, and Society
This course examines the history of science, tech-
nology, and the social changes related to them. It examines the impact of science and technology on ethical and religious beliefs, social institutions such as education, family, and work, and on larger sociopolitical entities and relations. The course also explores the effects of science and technology on natural and human-made environments. Cr 3.

## LCC 320 Sustaining Democracy

This course will focus primarily on the United States from 1877 to the present, exploring the various ways that U.S. democracy has become more inclusive since the late nineteenth century and the ways in which it has failed to live up to its ideals. The course also explores past and current obstacles to the creation and maintenance of a healthier democracy.

Cr 3.

## LCC 340 Exploring Careers, Choosing Life Roles

In this course, students relate self-knowledge to career and life roles, with an emphasis on gaining and managing career information; learning various career and life decision-making strategies; and communicating formative academic, co-curricular, and professional experiences in such formats as accomplishment statements and informal interviews. They also update their e-portfolios.

Cr 1.

## LCC 350I Global Past, Global Present

This course is a thematic survey of global history from its origins to the present. Its aim is to provide a wide contextualized understanding of human existence in a new format that is called "Big History," a concept that integrates knowledge from the natural and social sciences, with the humanities. The result is a more realistic understanding of how humans fit into the vast expanse of the universe. As a part of this survey, we will consider some of the challenges of modern globalization, with an important theme being the quest to develop sustainable and ethical lifestyles. The overall focus of this course will be on what such knowledge might mean in everyday lives and how we as responsible individuals and a responsible species should conduct ourselves in this world.

Cr 3.

## LCC 370E/W Toward a Global Ethics

This writing instruction course assists students in articulating and assessing their own values. It examines the range of ethical theories and positions and explores the influence of particular cultural ideologies on ethical beliefs. The course considers the ethical principles implied by democracy, sustainability, justice, and difference. It examines ethical issues and dilemmas faced by individuals, organizations, and nations while exploring personal and collective decision-making processes in a global context. Prerequisite: Core Area "C."

Cr 4.

## LCC 400 Finding Your Calling

In this course students assume active agency in career planning through learning how to market themselves to prospective employers. They learn to
use the tools needed for career placement, such as cover letter, resumes, and interviews. Students will update their portfolios with archival evidence of abilities gained through the Common Core, their major and co-curricular activities. Students will gain an understanding of the goals and outcomes for portfolio presentation.

Cr 1.

## LCC 410 Aesthetic and Political Dimensions of Language

This course attunes students to the beauty and power of language and to the way all knowledge is mediated in and through language. It explores how language shapes reality, experience, and identity. It examines ongoing tensions between language as a political tool and language as a form of art. Cr 3.

## LCC 430 Place and Community

This course grounds the Common Core themes of democracy, sustainability, justice, and difference through consideration of other places and other communities. It applies the framework of "place" to the study of human behavior, and it captures the College's commitment to service learning, and to the study and enhancement of Lewiston-Auburn history.

Cr 3.

## LCC 450 Internship

This online course provides students the opportunity to work in their chosen field to evaluate their interest and acquire basic skills needed to market themselves effectively. Students participate in an online seminar in which they learn about and reflect on workplace issues.

Cr 3-6.

## LCC 480 Senior Seminar

This course provides writing instruction experience for students from LAC's four degree programs. Students complete a major research and writing project addressing one of the four themes of the Common Core from an interdisciplinary approach. Prerequisite: ENG 100C or LCC 110C; LCC 200E or LCC 370E; HUM 300, and LOS 300 OR SBS 320.

Cr 3 .

## LCC 490 Portfolio Presentation

In this concluding learning experience, students reflect upon and synthesize their learning from each academic year, including co-curricular and service learning experiences. Students provide evidence of their abilities and demonstrate how they have developed personal meaning from their college learning experience and used it to shape future goals. Students present their final portfolios to other students, staff and faculty and/or members of the community.

Cr 1.

## LAC 100 Introduction to Collegiate Studies

An introduction to higher education with special emphasis on the purposes of college, an introduction to study skills, time management, writing across the curriculum, academic planning, and library utilization.

Cr 3.

## LAC 107 Internet Research

Students will learn how to conduct Internet research. Emphasis will be placed on evaluating sites and the use of information found on the Web for projects.

## LAC 110 Writing Support

This course focuses on how to improve writing skills through analysis of students' own papers, a review of grammar and punctuation rules, and strategies to enhance essay structure on both micro and macro levels. Course goals include learning how to convey meaning efficiently, clearly, and completely. Students are encouraged to determine course topics and to revise papers written for other courses. Students may enroll in this course up to three times. Pass/fail; meets for ten 80-minute sessions. Cr 1.

## LAC 112 Microsoft Excel

This course uses a problem-solving approach to electronic spreadsheets. It satisfies the LOS major's requirement and should follow the LAC 150 introductory course. Students will learn advanced data analysis, formulas, and create graphs to interpret the data. This course should be completed prior to taking the financial management, economics, or budgeting course. Prerequisite: LAC 150 or equivalent. Cr 1.

## LAC 114 PowerPoint

This computer program allows users an electronic means of giving presentations to groups of people. Students will learn how to create electronic slides using written, graphic, and sound materials. The slides can then be formatted in several different ways: 35 mm slides, overhead transparencies, and handouts. Students who have to give presentations to classes or who are considering careers in teaching, marketing, or public relations fields should consider this course. Cr 1.

## LAC 150 Microcomputers and Applications

An introductory lecture and laboratory course designed to introduce students to basic microcomputer concepts and their application to education, business, and home management. This course will cover: Windows, e-mail, Internet, and Microsoft Office: Word, Excel, PowerPoint, and Access.Cr 3.

## LAC/LOS 305 Programming with Visual Basics

This course is an introduction to modern structured programming on a microcomputer using a state-of-the-art object-oriented programming language. It covers all standard control and logic structures, arrays, functions, sub-routines, and data files. Major emphasis is given to an ongoing consideration of problem-solving techniques as they apply to simple and complex programming situations. Programming objects are studied extensively, along with events, properties, and methods. Prerequisite: ABU 190, or permission of instructor.

Cr 3.

## LAC/LOS 307 Web Design

This course will present in-depth Web page design for non-programmers. This will be accomplished
primarily through learning a full-featured Web design application. The course also includes an exploration of HTML, DHTML, and some experience with Web scripting languages. Finally, serverside Web strategies will be studied. Students will be expected to design and implement Web pages containing many of the features learned in class. Prerequisites: ABU 180/181 and/or ABU 190, LAC 150 , or significant Windows and Windows application experience, along with experience on the Internet using a Web browser.

Cr 3.

## LAC/LOS 318 Database Management

This course introduces skills and builds proficiency in database management. It is taught on PC computers using the latest version of Microsoft Access and is designed to help students develop competencies in a variety of database processing functions. Students become proficient in setting up databases, managing data, creating reports, using report enhancements, and manipulating data. Prerequisite: LAC 150 or equivalent.

Cr 3.

## LAC/LOS 319 Networks I

This course is an introduction to the installation, maintenance, and repair of personal computer networks. It provides students with an elementary understanding of network systems including communication components, LAN protocols, standards (de facto/de juri), system architecture, network software, and the fundamentals of network installation and repair. Offered at CMCC.

Cr 3 .

## LAC/LOS 320 Networks II

This advanced course addresses the installation, maintenance, and repair of personal computer networks. It provides students with an advanced understanding of network systems including software configuration, troubleshooting, security, tools, design strategies, and employee training. Offered at CMCC.

Cr 3.

## LAC/LOS 321 Introduction to Personal Computer Repair/Operating Systems

This course is an introduction to the installation, maintenance, and repair of personal computers and related equipment. It provides students with an elementary understanding of PC environments including system components, peripherals, operating systems, component/card interface, and the fundamentals of repair. Offered at CMCC.

Cr 3.

## LAC/LOS 331 Advanced Personal Computer Repair

This is an advanced course in personal computer installation, maintenance, and repair. It provides students with an in-depth study of PC system components, peripherals, and hardware interfaces and will emphasize problem solving, analysis, connectivity, and cabling difficulties.

Cr 3.
LAC/LOS 334 Integrated Software Packages
This is a course in the use of integrated software
packages for report, document, presentation, and information development activities. A variety of instructional activities stress file and data integration and explore intra- and inter-package communications. Integration of word processing, spreadsheet, database, and graphics software is featured using linking and other tools. Students are expected to produce documents, spreadsheets, database reports, and presentations which take full advantage of interoperability, communication, translating, linking, and sharing functions. Prerequisite: LAC 150 or equivalent.

Cr 3 .

## LAC/SBS 340J Language Acquisition and Literacy Development

This course provides students with opportunities to apply knowledge of fundamental principles and means of investigation used in the study and explanation of language acquisition and literacy development. It plays a foundational role in fostering students' understanding of literacy, which is key to their development as professionals charged with fostering children's literacy development. Cr 3.

B.S. in Industrial Technology

B.S. in Nursing

## RN to B.S. Option

Master of Leadership Studies

## Master of Occupational Therapy (MOT) Degree

The B.S. degree in industrial technology is extended from USM's School of Applied Science, Engineering, and Technology to Lewiston-Auburn College. For more information, contact Student Services at Lewiston-Auburn College at (207) 753-6500 or the School of Applied Science, Engineering, and Technology at (207) 780-5440. This program links very closely with academic programs at Central Maine Community College. Students must complete their technical requirements at Central Maine Community College or other institution, or they may receive credit for technical experience and training. Please refer to the Industrial Technology section of this catalog for specific program information.

The entry-level baccalaureate program in nursing is offered at Lewiston-Auburn College through the USM College of Nursing and Health Professions. Students admitted to this program at LAC will be able to complete all their coursework in Lewiston. The program is open to traditional first-year students and to adult learners. Full- and part-time options are available. For more information about this program, contact (207) 753-6624. Refer also to the College of Nursing and Health Professions section of this catalog for specific program information.

In recognition of the need for many registered nurses to earn a baccalaureate degree, the College of Nursing and Health Professions offers the RN to B.S. option at LAC. All courses required in this program are offered at LAC, and most classes meet once a week. Most students are part-time. For more information about this program, contact (207) 753-6624. Refer also to the College of Nursing and Health Professions section of this catalog for specific program information.

The master's degree in leadership studies supports the development of organizational and community leaders who seek to build a deep understanding of the dynamics of leadership, the convergence of leadership with other human relations, and the role of the individual as leader in society. The master's in leadership studies is an interdisciplinary professional program that blends the social and behavioral sciences and the humanities to explore the complex set of leadership issues and challenges that go beyond a particular subject or field of work. Graduates of the program will attain a mastery of leadership theory and skills that will enable them to perform successfully in leadership roles in their work organizations, their communities, and the world. In addition to developing new competencies, the program aims to develop behavioral orientations so that students may approach their leadership roles with a sense of social responsibility, a concern for ethics, and a commitment to the public good. The leadership studies program will foster understanding of the impact individuals can have on society and of the multidimensional nature of human relationships. Graduates will be prepared to exercise socially responsible leadership in service to organizations and communities. The MLS program is made up of 21 credits of required core classes, 9 credits of electives, and 6 credits of a capstone seminar and thesis or project. Please refer to the graduate catalog for more information.

The leadership studies $4+1$ curriculum allows students to earn both a bachelor's and a master's degree in five years (depending on student's full- or part-time attendance). Students focus on their bachelor's degree requirements during their first three years; a mix of undergraduate and graduate requirements in the fourth year; and exclusively graduate requirements in the fifth year. Students in the $4+1$ program may use up to 12 credits of graduate work for both the undergraduate and graduate degrees (taking the place of free elective credit in the undergraduate program). Contact the LOS program coordinator at (207) 753-6523 for more information.

Occupational therapy $(\mathrm{OT})$ is a health and human service profession that recognizes humans as occupational beings. People define who they are by what they do, or by the occupations in which they engage. Occupational therapists use meaningful occupation as interaction to help people of all ages maximize wellness and perform the skills they need to participate as fully in society as possible. OTs intervene with people who are experiencing varying degrees of activity impairment as a result of developmental, physical, psychological, or environmental dysfunction. OTs help people develop, compensate for, or regain the skills necessary for participation in meaningful life roles and skills of self-care, work, and leisure.

A master's degree in occupational therapy is offered for people who have an undergraduate degree in a field other than occupational therapy. Regardless of major, students interested in applying to the MOT program must complete the prerequisites listed below. Prerequisite courses must be passed with a grade of at least B (3.0). In addition, all science prerequisite courses must have been taken within six years prior to the fall semester for which the student is applying. Completing the prerequisites does not guarantee admission to the occupational therapy master's program.
Undergraduate Occupational Therapy Prerequisites Credits
College Algebra
Introduction to Statistics (such as MAT 120D or LCC 150D) 3
College-level English 6
(at least three credits must focus on writing; HUM 135I or HUM 136 may be substituted for a writing course)
Introduction to Sociology 3 (or an upper level sociology or SBS course)
Abnormal Psychology 3
Human Growth and Development (lifespan course) 3
Introduction to Physics and Lab 4
Human Anatomy and Physiology I with Lab 4
Human Anatomy and Physiology II with Lab 4
Medical Terminology 1-3

For additional information concerning the application process and requirements consult the graduate catalog or the program administrative assistant at (207) 7536523.

Students may complete their undergraduate and graduate education in five (5) years by selecting this option. Students who are matriculated into an LAC undergraduate program may apply to the MOT program in their junior year if they have completed the following by May of that year:

1. USM Core curriculum requirements;
2. Academic major requirements; and
3. MOT prerequisite requirements.

Contact MOT program at (207) 753-6523 for more information.
The master of occupational therapy is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4270 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA's telephone number is (301) 652-AOTA. Graduates of the program will be eligible to sit for the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR) and be eligible to practice. Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT certification examination.

## Minor in Information Systems (IS)

Lewiston-Auburn College offers a minor that can be substituted for the LOS concentration, or taken separately as a minor by students in any degree program. The IS minor is offered in collaboration with Central Maine Community College (CMCC) which provides a number of the required courses. Students must be admitted separately into the minor in order to enroll in these CMCC courses. The IS minor requires completion of the following LAC courses ( 24 credits):

| MAT | 108 | College Algebra (or equivalent) |
| :--- | :--- | :--- |
| LAC | 150 | Microcomputers (with a grade of at least B) |
| LCC | 310 J | Science, Technology, and Society |
| LOS/LAC | 318 | Database Management |
| LOS/LAC | 334 | Integrated Software Packages |
| The following courses are offered at CMCC: |  |  |
| LOS/LAC | 319 | Networks I |
| LOS/LAC | 320 | Networks II |
| LOS/LAC | 321 | Introduction to Personal Computer |
|  |  | Repair/Operating Systems |
| Electives: |  |  |
| BUS | 191 | Introduction to Structured Programming |
| LOS/LAC | 305 | Web Design |
| LOS/LAC | 331 | Advanced PC Repair |

## SBS Minor in Early Childhood Studies

This minor (also available as a concentration) provides the skills needed to work with young children and their families, and to provide the academic background required for graduate study or advanced training in the field. Students pursuing ECS as either a minor or a concentration should complete the necessary paperwork so that ECS appears on their transcript. SBS students pursuing a minor in ECS are required to take at least 4 extra courses ( 12 credits) in addition to the requirements of the major. These can be met in various ways. In contrast, a concentration is simply a way of organizing the 6 required SBS electives, one from each of the categories below. Any substitutions must be approved by faculty advisor. Any student who wants to fulfill the MHRT (Mental Health Rehabilitation Technician) certificate for the State of Maine must work closely with an advisor as early as possible.

1. Child Development:

SBS 305 Child Development or
SBS 309 The Psychology of Attachment in Early Childhood
Note: SBS 309 is appropriate for students with significant prior learning in developmental psychology. SBS 309 is not recommended for students in other majors who are taking a minor in ECS.
2. Family:

SBS 341 Family or
SBS 399 Family Systems
3. Leadership:

SBS 301 Group Dynamics or
SBS 302 Interpersonal Behavior
4. Systems:

SBS 310 Childhood and Society or
EDU 200 Education in the U.S. or
SBS 346 Introduction to Social Services
5. Children and Evaluation:

SBS 450 Approaches to Assessment or
SBS $350 \quad$ Psychosocial Disorders
SBS 399 Infant Mental Health
6. Teaching/Preparing Children for Learning:

SBS 340 Language Acquisition or
EDU 336 Children's Literature

## SBS Concentration in Counseling

This concentration provides an introduction to theory, topics, and skill areas relevant to professional applications in counseling. Organizing the choice of SBS electives through adoption of this concentration strengthens students' preparation for entry into a variety of positions in or related to the helping professions, as well as for the pursuit of graduate study. Students doing so should complete the necessary paperwork so that counseling appears on their transcripts. A concentration is a way of organizing the 6 required SBS electives. Two foundational courses are required, plus one each from categories A through D below. Substitutions must be approved by a faculty advisor. Any student who wants to fulfill the MHRT (Mental Health Rehabilitation Technician) certificate for the State of Maine must work closely with an advisor as early as possible.

Foundational courses for the concentration:
SBS 311 Theories of Personality
SBS 411 Counseling and Psychotherapy
Choose one course from each of the following four groups of courses. Any substitutions must be approved by faculty advisor:
A. Psychosocial Disorders and Services:

SBS 303 Abnormal Psychology
SBS 350 Psychosocial Disorders of Childhood and Adolescence
SBS 346 Introduction to Social Services
SBS 399 Responding to Mental Health Crisis in the Community
B. Diversity and Multiculturalism:

SBS 360 Culture, Behavior, and Personality
SBS 316 Diversity in the Workplace
SBS 345 Race, Class, Gender
SBS 470 Study Abroad
C. Developmental Contexts:

SBS 305 Child Development
SBS 306 Adolescence
SBS 307 Midlife and Development
SBS 341 The Family
D. Applied Topics:

SBS 308 Health, Illness, and Culture
SBS 343 Substance Abuse
SBS 304 Food, Culture, and Eating
SBS 342 Gerontology
SBS 344 Violence: Causes and Control
SBS 450 Approaches to Assessing Individual Differences in Children

## Minor in Global Studies

This minor investigates the rich varieties of trans-border development and migration, nation states, and world cultural communities. Modern situations are the result of historical events, and decisions made today around the world are not made in an historical vacuum. Globalization issues are ever more vital as we reshape our local, regional, and global networks. Core issues include the different points of view embodied in concepts such as globalization and internationalization, as well as the challenges of sustainability, diversity, and justice. The dynamic between local and global issues is a central issue of modern society, crucial to our region and important to us in developing a personal rapport with our evolving heritages and economies. The global studies minor consists of a total of 22 credit hours. A maximum of six credit hours from a student's academic major may be applied toward the minor.

Requirements
Foundation Courses (6 credits)
Introductory Courses (select one)

1. SBS/LOS 381 Introduction to Globalization

HUM 326I World History and Geography II
2. Context course (select one)

| GEO | 101J | Human Geography |
| :--- | :--- | :--- |
| ANT | 101 J | Anthropology: The Cultural View |


| Theory Course (3 credits-select one) |  |  |
| :---: | :---: | :---: |
| LOS | 330 | Leadership in Different Cultures |
| HUM/SBS | 499 | A topics in global theory course |
| SBS | 360 | Culture, Behavior, and Personality |
| Methods Courses ( 3 credits-select one) |  |  |
| GEO | 108 | GIS Applications |
| HUM | 350E | Cultural Fieldwork |
| SBS | 399 | A topics in global methods course |
| Subject or Regional Studies Courses (6 credits - select two) |  |  |
| HUM | 303I | French North America |
| HUM | 310I | French Settlement in the Northeast |
| HUM | 325I | World History and Geography I |
| HUM | 330I | International Labor, Literature, and Arts |
| HUM | 340I | World Native and Indigenous Studies |
| HUM | 342H | Women Writing around the World |
| HUM | 499 | A global topics course |
| LAC | 435 | Place and Community |
| LOS | 399 | A global topics course |
| SBS | 308 | Health, Illness, and Culture |
| SBS | 399 | A global topics course |
| SCI | 499 | A global topics course |
| Study Abroad Courses |  |  |
| HUM | 490 | Overseas Investigations and Comparisons |
| LOS | 470 | Leadership Study Abroad |
| SBS | 470 | Study Abroad |
| Capstone Courses (4 credits) |  |  |
| LAC | 480 | Senior Seminar (final paper ona global theme) |
| LAC | 491 | Capstone Seminar. |

Students will take a one-credit seminar to compile a portfolio of work in the minor, to be shared with the college or larger community in any format approved by the advising faculty member.

## Minor in Women and Gender Studies

This minor is offered at Lewiston-Auburn College through USM's women and gender studies program and is open to all majors. The minor consists of a minimum of 9 hours of required courses and 9 hours of women and gender studies-related courses as follows:

Both of the following ( 6 hours):
WST 130I Introduction to Women and Gender Studies
WST 280W Women, Knowledge, and Power
Either of the following (3 hours):
WST $380 \quad$ Politics of Difference
WST 390 Contemporary Feminist Theories
Additionally, 9 hours of women's studies related courses are required (two of the courses must be at the 300 -level or above). Those regularly offered at LewistonAuburn College include the following:

| HUM | 342 | Women of Color in Fiction |  |
| :--- | :--- | :--- | :---: |
| SBS | 341 | The Family |  |
| SBS | 361 | The Psychology and Sociology of Women |  |
| HUM | 451 H | Masculinities in U.S. Literature and Culture |  |
| SBS/HUM 458H | Motherhood: Political Institution, Cultural Icon, <br> Defining Experience |  |  |
| See the women and gender studies program in this catalog for other related courses. |  |  |  |

## Minor and Certificate in French North-American Studies <br> (19 credits for the minor, 9 credits for the certificate)

This interdisciplinary course of study focuses on the diversity of French society in North America. It weaves together a variety of subjects, such as geography, history, gender, literature, films, and current events. It also involves students in field trips to historical and cultural sites, in community service and in actual research-using formats as diverse as oral history and archeology. Three courses are required, as well as three supporting courses chosen in consultation with the director of the minor. Additionally, a student must complete a capstone paper or project
that integrates their work. Any USM student may take this as a minor. The certificate is for non-degree students and only requires the three basic courses.

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Prerequisite: Western Civilization II or World History and Geography II
HUM 301I French North America (3 credits)
HUM 310I French Settlement in the Northeast (3 credits)
HUM 460 Franco-American Community & Archival Work (3 credits)
Three supporting courses (9 credits)
Recommended: HUM }125\mathrm{ French Language & Maine Society
HUM }498\mathrm{ Independent Studies - Capstone course (1 credit)
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## Minor in Leadership Studies

The leadership studies minor, offered $50 \%$ or more online, is open to all students other than leadership and organizational studies (LOS) majors. It is writing intensive and consists of 18-19 required credit hours. (LCC 370 Ethics is 4 credits; however, other 3-credit ethics courses are accepted upon review by the program faculty.) The following courses are required:

| LOS | 300 | Organizational Theory |
| :--- | :--- | :--- |
| LOS | 301 | Group Dynamics |
| LOS | 350 | Leadership |
| LCC | $370 \mathrm{E} / \mathrm{W}$ | Toward a Global Ethics |

In addition, two of the following courses must be completed:

| LOS | 317 | Leading Through Conflict |
| :---: | :---: | :---: |
| LOS | 330 | Leadership in Different Cultures |
|  | or |  |

LOS 316 Diversity in the Workplace
LOS 440 Organizational Change and Development
A minimum grade of C in each course is required to earn the minor.

## Certificate in Leadership Studies

A certificate in leadership studies, offered $50 \%$ or more online, is open to students other than leadership and organizational studies (LOS) majors. It is writing intensive and consists of 12-13 required credit hours. (LCC 370E/W Ethics is 4 credits; however, other 3-credit ethics courses are accepted upon review by the program faculty.) The following courses are required:

| LOS | 300 | Organizational Theory |
| :--- | :--- | :--- |
| LOS | 301 | Group Dynamics |
| LOS | 350 | Leadership |
| LCC | $370 \mathrm{E} / \mathrm{W}$ | Toward a Global Ethics |
| A minimum grade of C in each course is required to earn the certificate. |  |  |

## Certificate in Creative Leadership and Global Strategy

A certificate in creative leadership and global strategy, offered $50 \%$ or more online, is open to all students, including leadership and organizational studies (LOS) majors. It is writing intensive and consists of 12-15 required credit hours. (LOS 330 is 3 credits; LOS 470 is 6 credits.) The following courses are required:

| LOS | 300 | Organizational Theory <br> LOS |
| :--- | :--- | :--- |
| 330 | Leadership in Different Cultures <br> or |  |
| LOS | 470 | Leadership Study Abroad <br> LOS 350 | | Leadership |
| :--- |
| LOS | $399 \quad 1$| Deliberate Creativity \& Innovation |
| :--- |

A minimum grade of C in each course is required to earn the certificate.

## Certificate in Public Health

The certificate in public health addresses a need for awareness of public health issues not only in Maine, but the whole world. Evolutionary and multicultural aspects of diseases and their interface with human populations; health care systems; food utilization and governmental policies; epidemics of flu, HIV/AIDS, and drugresistant strains of TB; as well as the threat of bioterrorism, are daily headlines in the media. Therefore, to prepare undergraduates, decision makers, and policy advocates to be able to understand the multitude of public health concerns and to be able to
apply that knowledge is essential to any safe and functioning society. The following courses are required:

| LOS/SBS 335 | Legal Issues in Health and Human Services |
| :--- | :--- |
| SBS/SCI 399 | Introduction to Public Health |
| SCI 399 | Introduction to Epidemiology |

In addition one of the following elective courses must be completed:
SBS 304 Food, Culture and Eating
SBS 308 Health, Illness, and Culture
SBS/SCI 399 Public Health Nutrition

## Concentration in Public Health

The concentration in public health addresses a need for awareness of public health issues. Evolutionary and multicultural aspects of diseases and their interface with human populations; health care systems; food utilization and governmental policies; epidemics of flu, HIV/AIDS, and drug-resistant strains of TB; as well as the threat of bioterrorism, are daily headlines in the media.

The concentration in public health is intended to help SBS majors structure the choice of their electives and to prepare them to become decision makers and policy advocates. It is also intended to shape their ability to understand myriad public health concerns and their facility in applying pertinent theorietical and practical knowledge to create a safe and functioning society. Professions that utilize knowledge of public health may be in delivery of mental health services, gerontological services, or child and family services.

| The following courses are required: |  |  |
| :--- | :--- | :--- |
| SBS/SCI 399 |  | Introduction to Public Health |
| SBS/SCI 399 | Introduction to Epidemiology |  |
| SBS/LOS 335 | Legal Issues in Health and Human Services |  |
| SBS 308 | Health, Illness, and Culture |  |
|  |  |  |
| One elective course will be chosen from the following: |  |  |
| SBS 304 |  | Food, Culture and Eating |
| SBS/SCI 399 | Public Health Nutrition |  |
|  |  |  |
| One elective course will be chosen from the following: |  |  |
| SBS/LOS 338 | Health Care Policies |  |
| SBS | 341 | Family |
| SBS | 343 | Substance Abuse |
| SBS | 344 | Violence: Causes and Control |
| SBS | 345 | Race, Class and Gender |
| SBS | 350 | Psychosocial Disorders of Childhood and Adolescence |
| SBS | 353 | AIDS: Biology, Social Policy, and the Law |
| SBS | 381 | Globalization and Development |
| SBS | 399 | Death and Dying |
| SBS | 399 | Ethnicity, Immigration, and Identity |
| SBS | 399 | Prevention and Wellness |
| SBS | 399 | Working with Diverse Populations |

## Collaborative Learning and School Success Program

The Collaborative Learning and School Success (CLASS) program is no longer accepting new students. For information on teacher education opportunities at USM, turn to the College of Education section of this catalog and/or call (207) 780-5371.

## B. A. Degree in Arts and Humanities

The arts and humanities program is the most versatile and flexible degree program available for students who want both a solid liberal arts education and strong preparation for a wide range of career options. The major encourages students to be agents of change in a rapidly shifting world and prepares students for careers as diverse as education, print and broadcast journalism, advertising, creative writing, government and politics, social services, and arts management, as well as for further study in a range of graduate programs and professional schools, from law and history to business and labor studies. The courses examine a variety of contemporary and historical issues, and do so in ways that make the past more relevant and the present more understandable. These courses integrate such fields as writing, history, African-American literature, photography, geography, Franco-American society, popular culture, native and indigenous issues, critical theory, gay and lesbian studies, religion, evolutionary biology, and ethnic studies. Certain threads run through all courses, from local, regional, and global issues to philosophy and creative thought. Classes feature small group work, discussions, and written work designed to encourage critical thinking, communication, and leadership skills necessary to advance professionally and contribute meaningfully as members of our pluralistic society. We engage students with information literacy, offering courses in blended, online, and hyper-flexible formats. Our focus is to prepare students to be active citizens of the world.

Total credits necessary for the degree: 120.
Students are responsible for completing the USM-LAC Core curriculum.

| Prerequisite Courses | (6 credits) |  |
| :---: | :--- | :--- |
| HUM | 120H/ENG 120H | Introduction to Literature |

Note: Satisfactory completion of both a 100-level college writing course and a course on critical thinking is a prerequisite to all courses in this major. Students must get their advisor's approval before taking any course without the HUM prefix if they want the course to count toward the major. No more than four courses ( 12 credits) lacking the HUM prefix can be taken for credit within the major unless written approval is obtained from at least two tenured or tenure-track arts and humanities faculty members.
Program Requirements (45 credits) Credits
General (18 credits)
HUM 201F Creative Writing 3
HUM 300 Texts and Meanings 3
HUM 309I United States Studies: Gender, Race \& Class, 3
HUM 325I World History and Geography I 3
HUM 326I World History and Geography II 3
HUM Service Learning 3
May be met by taking HUM 125 French Language \& Maine Society, HUM
307F Creative Nonfiction, HUM 350E Cultural Fieldwork, HUM 360 Franco-
American Community \& Archival Work, HUM 370 Literacy Studies, or an
HUM 398 Independent Study that is specially designed to meet this require-
ment. (Students are encouraged to take HUM 125 French Language \& Maine
Society, or 6 credits of a language other than English).
Interdisciplinary Courses (12 credits)
Students will select four interdisciplinary courses. Courses may vary from year
to year, but typical offerings are:
HUM 213H Metaphor in Literature, Science, and Religion 3
HUM 223H Life and Literature after Darwin 3
HUM 301I French North America 3
HUM 313I "What is Race?" 3
HUM 318H Photography and Poetry: Two Ways of Speaking 3
HUM 320H African-American Literature and Culture 3

## Electives (15 credits)

All of these courses must be at the 300-400 level, unless approved by two faculty members.

There are two alternative tracks for which some students may qualify:

## Degree Completion Track (45 credits)

Some students may choose this track, which is designed to assist transfer students and those with professional training, or life experiences to achieve their degree. Depending on transcripts and other forms of accreditation, courses and experiences will be assessed for transfer into the major. Entry into this track requires prior approval by the arts and humanities faculty.

## Support Groups

Many co-curricular activities are available for students in this major:
The Learning Workshop is a lively tutoring center staffed by a director, peer tutors, and professional tutors. Peer tutors receive training in tutoring pedagogy, have multiple opportunities to observe tutoring sessions, and begin supervised tutoring as they work toward their College Reading and Learning Association certification. Experience as a writing peer tutor is particularly valuable for future teachers, writers and editors.

The Literati is a student group that meets throughout the semester to encourage a creative community and develop the writing talents of its members. Each semester, the members of the Literati sponsor Café Night, an open microphone event of original readings (typically poetry and fiction), short film, and song. The Literati members also publish Sneakers, Stilettos and Steeltoes, the student literary magazine. Student editors solicit submissions, consult with writers, design layout, negotiate printing contracts and develop marketing materials.

The International Students of Lewiston-Auburn (ISOLA) is a multicultural and international student group that promotes diversity in the United States and global engagement. ISOLA sponsors a variety events and programs that bring together a wide range of experiences with seminars, social gatherings, workshops, publications and other vehicles for exchange.

The Franco-American Collection is the oldest and largest facility in Maine devoted to Franco-American culture and history, as well as one of the three largest in the United States. It is home to a wide variety of letters, diaries, oral histories, newspapers, scrap-books, maps, audio-recordings, photographs, books, academic papers, and much more from the Androscoggin Valley, other parts of Maine, and around North America. Students are invited to participate in the Collection's many activities, which include international conferences, cultural events, stage performances, music festivals, poetry readings and other activities.

## HUM 105F Basic Photography

This course is an introduction to black and white photography, designed to help students gain understanding through "hands-on" photographic work. Lectures include classroom discussions concerning the history and aesthetics of photography, and techniques include camera and lens functions, exposure methods, basic black and white film processing, printmaking, print finishing, and presentation techniques.

Cr 3.

## HUM 120H / ENG 120H Introduction to Literature

This course is designed to introduce students to four basic literary genres: poetry, fiction, nonfiction, and drama. Through a combination of lectures, small group discussions, exercises, readings, and weekly writing assignments, students will work toward mastering a basic understanding of literature. Students will learn how to improve their writing, as well as their ability to read and analyze literature. Cr 3.

## HUM 125 French Language and Maine Society

This is an introductory course for the French language. Students will also learn about the cultural and linguistic context of French society in Maine and eastern North America. Students will use the French language they are studying to work with the FrancoAmerican Collection and Maine Franco-American communities.

Cr 3.

## HUM 201F Creative Writing

This course is an introduction to the basic principles and practices of writing memoir, fiction, flash fiction, and poetry. Students will be exposed to a variety of writing modes through exercises and engagement with literary texts. Emphasis is on using imaginative and precise language and on assembling a portfolio of revised student writing. Prerequisite: LCC 110. Suggested preparation: LCC 250. Cr 3.

## HUM 213H Metaphor in Literature, Science, and Religion

This course is a comparative study of literature, science, and religion, focusing on aims, methods, and values, and on the nature of truth and creativity in each discipline. Readings in fiction, poetry, religion, and modern physical and biological science provide a basis for discussion of the metaphoric nature of literary, religious, and scientific discourse. Our goal is to demonstrate that all three areas of human endeavor rely heavily on the metaphoric nature of language in their search for meaning and truth. This course consists of careful reading of texts, active class discussion, and out of class essays. No college science background required.

Cr 3.

## HUM 223H Life and Literature after Darwin

A study of biological evolution and its impact on culture and imaginative literature. Readings on Darwin's theory of evolution in its original and modern forms will be followed by a study of literature that depicts our attempts to understand, cope with, and transcend our biological nature.

Discussions and writing assignments are aimed at helping students understand how science influences literature and, conversely, how literature translates science into human dimensions. No college biology background required.

Cr 3.

## HUM 250H Song as Literature

This course is designed to introduce students to the role of the song in our cultural heritage as a fundamental literary genre and a remarkably democratic and influential art form. The course traces the evolution of the story song from the epic ballads of Europe and North America through the development of songs for religious, political, nationalistic and purely entertainment purposes.

Cr 3.

## HUM 251H Masculinities in U.S. Literature and Culture

This course begins with the notion that masculinity is as complex and variable a cultural category as femininity. Given this premise, we will examine literature and popular forms of mass media that take masculinity as a primary theme. Cr 3.

## HUM 260I Media Literacy and Theories of Popular Culture

In order to foster a critical approach to modern media, this course applies theory and analysis to popular culture texts. What do we learn about our modern industrial consumerist society from the texts it produces? What makes something popular, and how do we detect a text's projected world view? We will study TV, film, photography, graphic novels, the Internet, and music. Framing popular culture as a mass-media driven phenomenon, we will explain the deeper significance of our society using a selection of critical and theoretical commentary. Cr 3.

## HUM 300 Texts and Meanings

This course examines literature and literary theory to understand how language shapes us and how we, in turn, shape language. How are meanings made? How are they received by readers? How do ideas about language change over time and across cultural divides? Why do we value some writings over others? Why is political and other discourse so easily manipulated? We will examine these and other questions as we read from major writers of the 19th and 20th centuries, alongside various approaches to literary and cultural and study. Prerequisite: ENG 100C.

Cr 3.

## HUM 301I French North America

This is a survey course about the diverse French society in North America. From Maine to Haiti and from Sonora to the Yukon, the French have adapted to an array of niches on our continent. This course encourages not only a review of the well known communities, but also research of lesser known ones. Hyper-flexible course; the online section is only open with the professor's permission. Cr 3-6.

## HUM 305F Creative Writing: Poetry

This course is designed to introduce students to the art
and practice of writing poetry. Organized as a workshop, it features close examination of the student's own writing as well as the work of outstanding contemporary poets. Prerequisite: HUM 201F. Cr 3.

## HUM 306F Creative Writing: Fiction

This course is designed to introduce students to the art and practice of writing fiction. Organized as a workshop, it features close examination of the student's own writing as well as the work of outstanding contemporary fiction writers. Prerequisite: HUM 201F.

Cr 3 .

## HUM 307 Writing Creative Nonfiction

This course explores the literary terrain between imaginative literature and journalism. Students study the fictional techniques employed by journalists and examine the questions their work poses about the uneasy boundaries between fact and fiction. Students will produce their own extended nonfiction essay.

Cr 3.

## HUM 309I United States Studies: Class, Race and Gender

Drawing on political and social history and imaginative literature, this course will explore efforts that have been made to overcome the discrimination and oppression that keep U.S. democracy from achieving the ideals of liberty and justice on which it was founded.

Cr 3.

## HUM 310I French Settlement in the Northeast

This course will look at the exciting dynamics of French settlement in the northeastern part of America, from its beginnings in the 16th century to the present. The ancestral homeland of French North America included much of what today is called southern Québec, northern New England, and Atlantic Canada. From this cultural "hearth," French settlers then expanded to create many distinctive societies in new areas of the continent. We will address the varieties of cultural identity and old stereotypes, as well as search out new directions in which French society is going in the Northeast. Hyper-flexible course; the online section is only open with the professor's permission. Cr 3.

## HUM 313I What is 'Race'?

The concept of race is one of the most contentious ideas of modern society. This course will examine the history and biology of race, and trace the development of the idea of race in American culture. Students will examine evolution to understand the diversity in the human species. They will integrate this information with historical attempts to define race so as to gain a better understanding of race and racial issues.

Cr 3.

## HUM 318H Photography and Poetry: Two Ways of Speaking

This course deals with two modes of creative expression: photography and poetry. Its purpose is to help students read intelligently and sensitively
both photographs and poems and to assist them in exploring connections between the two types of expression.

Cr 3.

## HUM 320H Early African American Literature and Culture

This course studies the history of eighteenth- and nineteenth-century African-American literature by examining transcriptions of oral folk productions, slave narratives, speeches, autobiography, essays, poetry, and prose fiction in order to trace the development of African-American literary culture. The social, political, and cultural contexts of the works will also be considered.

Cr 3.

## HUM 325I World History and Geography I

This is the first in a series of two courses that are designed to help students develop an understanding of and an appreciation for world history and geography. The course's goal is to provide students with a humanistic background from which to better comprehend global complexities. This course will cover the period from prehistory to the age of modern expansion, from about 50,000 to 500 years ago. Cr 3 .

## HUM 326I World History and Geography II

This is the second in a series of two courses that are designed to help students become more knowledgeable participants in today's rapidly changing world. Its goal is to make links between global history and modern world situations, as well as find the locations on a map. In other words, it is a primer in "global citizenship." This course covers the period from the Age of Modern Exploration (ca. 1500) to the present.

Cr 3.

## HUM 330 International Labor, Literature, and the Arts

This is an interdisciplinary course designed to develop an appreciation for the diverse forms of work and labor-organizing around the world and their expression through literature and the arts. We will look at songs, films, murals, zines, poetry, cartoons, novels, short stories, biographies, and more. Although we will consider work historically, our primary goal is to develop an international view of labor in the modern world.

Cr 3 .

## HUM 332 Religion in Culture and Politics

This course will look at one or more historic or contemporary issues or events in order to explore the connection between religion and the origin, progress and outcome of each issue or event under consideration.

Cr 3.

## HUM/SBS 334 Spirituality

Spirituality, variously defined, is a central part of human experience, constituting important levels of consciousness and meaning. This course will investigate the experience and development of spirituality over the life span as depicted in religious, psychological, "New Age," and imaginative literatures. Cr 3.

## HUM 340I World Native Studies

This is an interdisciplinary course designed to develop an appreciation for the diversity of native societies around the world. Some important points for us to consider are the differences and disparities between the developed nations and the fourth world, as well as the ambiguities of terms like "native," "traditional," "indigenous," "aboriginal," and "civilized." We also will consider case studies of modern native societies, such as the Mayan, Kurd, and Basque peoples, looking not just at their traditional histories and cultures, but also at some of their contemporary movements, including the EZLN, PKK, and ETA rebellions. We will seek to find common issues faced by native peoples around the world, as well as to identify problems unique to each group. A particular focus of this course will concern some of the Eastern Algonquian nations of Maine and the Northeast, including the Androscoggin, Almouchiquois, and Abenaki (Alessikantekwi).

Cr 3.

## HUM 342H Women Writing around the World

This course examines critically acclaimed imaginative works by contemporary women writers to explore issues of identity in an international context. Authors include Marjane Satrapi, Edwidge Danticat, Jhumpa Lahiri, Michelle Cliff, Cristina Garcia, and Bharati Mukherjee. A primary objective will be to identify and investigate the complexities of multiple-situated selves across geographic borders as they are represented in literature. To do this, we will look at common themes of racial and cultural hybridity (intermixture), the legacies of colonialism, and the tension between local allegiances and global realities.

## HUM 350E Cultural Fieldwork

This course is designed to help students work on ways to analyze, research, and exhibit cultural information. As a fieldwork course, it emphasizes actual research projects done by the students themselves. Such an integration of theory, method, and application provides students with the opportunity to develop their skills in the study of highly variable human culture and society. An important part of this course also is to involve members of the community in projects, working toward a specific goal of public scholarship, such as designation of a historical site or acknowledgement of a cultural situation. This course satisfies the HUM service learning requirement.

Cr 3-6.

## HUM/SBS 358H Motherhood: Political Institution, Cultural Icon, Defining Experience

This interdisciplinary course examines motherhood from the perspectives of cultural studies and psychology. Consideration of historical and cultural depictions of mothers will elucidate the particular faces and functions of motherhood as they are variously conceived. Modern psychological theories will be discussed as the means by which cultural demands regarding mothering are currently being prescribed. The manner in which the various powers attributed to mothers contribute to the construc-
tion of particular social policies and practices will also be considered.

Cr 3.

## HUM/SBS 366 Transforming Words: Poetry and Psychologies of Change

This course examines the interrelationships between poetry and psychology, with a focus on transformations of meaning in words and lives. Topics will include the varying functions of poetry over the life span, poets' reflections on how and why they write, poetry as political witness and community catalyst, therapeutic uses of poetry, and the distinctive qualities of "poetic" language. Students have the option of pursuing community-based projects involving poetry. Blended course.

Cr 3.

## HUM 370 Literacy Studies

This course introduces the field of literacy studies through an examination of theories and activities involving literacy. It begins with an inquiry into definitions of literacy and goes on to trace a brief history of thinking about literacy with special attention to cross-cultural and transnational issues. This course satisfies the service learning requirement. Cr 3.

## HUM 389H Sexualities in Literature and Film

This course will introduce students to issues of sex, gender, and sexuality as they are represented in selected literary and cultural productions. In particular, we will be concerned with work by or about sexual difference. In addition to primary readings by Allison, Cliff, Winterson, Spanbauer, Woolf, and Baldwin, we will read secondary material on issues of identity and sexuality.

Cr 3 .

## HUM 460 Franco-American Community and Archives Work

This course will consist of directed study and work with the Franco-American Collection. The largest repository of Franco-American documents in Maine and one of the largest in the United States, the Collection is home to a wide variety of letters, diaries, oral histories, newspapers, scrapbooks, maps, audio recordings, photographs, books, and academic papers. This diverse material comes from the Androscoggin Valley, other parts of Maine, the Northeast, and from around North America. Projects will include locating and obtaining materials, their conservation and preservation, cataloguing and accessioning documents, as well as projects of public service and community outreach. This course satisfies the HUM service learning requirement. Hyper-flexible course; the online section is only open with the professor's permission. $\mathrm{Cr} 3-6$.

## HUM 490 Overseas Investigations and Comparisons

This course will consist of directed study and work outside of the usually defined "boundaries" of the United States. This can mean outside the physical borders, such as Uruguay or New Brunswick, Chiapas, or Somalia. But it can also mean outside the perceived borders of the mainstream nation
state, such as work on a Lakota Sioux reserve or with Latino/Latina community in East Los Angeles. A student in this course will work closely with a faculty member to develop a project, carry it through, and produce a summary presentation. $\mathrm{Cr} 1-6$

## HUM 498 Independent Study

HUM 499 Special Topics
A variety of topics courses have been and will be offered. These have included: Religions of the World; Buffy the Vampire Slayer: Theory, Metaphor and Fashion; and Historical Archeology Field School.

Cr 3.

## B.A. Degree in Natural and Applied Sciences

This program provides students with a liberal arts education emphasizing basic sciences. Students may develop a concentration focusing on the biology of human health and illness or one focusing on environmental issues.

The concentration in the biology of human health and illness is designed to provide students with a sufficient understanding of human biology to enable them to pursue careers in health education, to teach life sciences, to make wise health care decisions, to better communicate with health care providers, and/or to continue their education in health- and science-related fields (e.g., immunology).

The environmental issues concentration provides students with a sufficient understanding of environmental issues to enable them to make wise decisions concerning the use of natural resources and the preservation of natural areas and species, to communicate with regional planners, to teach life sciences, and/or to continue their education in environmentally related fields.

A critical component of this degree program is the internship, selected with the assistance of the director of field experiences. Students identify an organization that will enable them to evaluate potential career opportunities and develop workplace skills. Students must complete USM's Core curriculum.

Before taking 300-level courses, students must have completed the following prerequisite courses ( 9 credits) with grades of at least C: Microcomputers and Applications, College Writing, and College Algebra.

Major Requirements ( 25.5 credit hours) Credits
CHY 103/104 Organic and Biochemistry with Lab 4
MAT 108 College Algebra 4
$\begin{array}{llll}\text { SCI } & 107 & \text { Biological Principles II } & 4.5\end{array}$
SCI $113 \quad 3$
SCI 114 Laboratory Techniques I 1
SCI $115 \quad$ Principles of Chemistry II 3
SCI 116 Laboratory Techniques II 1
SCI $300 \quad$ Writing in the Discipline $\quad 1$
SCI 315 Environmental Health with Lab 4
Biology of Health and Illness Concentration (25 credit hours)
SCI $170 \mathrm{~K} / 171 \mathrm{~K}$ Human Anatomy and Physiology I with Lab
SCI 172/173 Human Anatomy and Physiology II with Lab 4
SCI 209 Human Genetics 3
SCI 252 Medical Microbiology 4
SCI 305 Molecular Physiology 4
SCI Pathophysiology I 380
$\begin{array}{llll}\text { SCI } 381 \quad \text { Pathophysiology II } & 3\end{array}$
$\begin{array}{cc}\text { Environmental Issues Concentration (30 credit hours) } \\ \text { LCC/SCI 230K } & \begin{array}{l}\text { Environmental Science, Policy, \& Sustainability } \\ \text { with Lab }\end{array}\end{array}$
SCI $105 \mathrm{~K} / 106 \mathrm{~K}$ Biological Principles I with Lab 4.5
SCI 340 Applied Botany with Lab 4
SCI $355 \quad$ Ecology with Lab 4.5
SCI 360 Environmental Issues 3
SCI 365 Marine and Coastal Biology 4
SCI 421 Natural Resources Policy 3
GEO Any Geographic Information Systems Course 3

## Electives

The following biology courses fulfill the corresponding prerequisite requirements at Lewiston-Auburn College:

BIO $105 \mathrm{~K}=$ SCI 105K; BIO 106K = SCI 106K; BIO $107=$ SCI 107; BIO 111
$=$ SCI 170; BIO $112=$ SCI 171; BIO $211=$ SCI 172; BIO $212=$ SCI 173.

## LCC/SCI 230 K Environmental Science, Policy, and Sustainability with Lab

This course presents a multidisciplinary survey of the scientific principles underlying energy utilization, nutrient cycles, global warming, population, and natural resource policy and management. The lectures will be comprised of Socratic interactions and group discussions relating regional, national, and global components that encompass ecology, economics, politics, and social endeavors. This course includes a laboratory involving field and lab work and service learning efforts.

Cr 4.

## LCC 100 Profiles, Proficiencies, Portfolios

This course engages students in personal assessment and goal setting. It introduces students to LAC's interdisciplinary, writing-intensive, and stu-dent-learning centered culture. Students link their own stories (what has brought them to this point in their personal, academic, and professional lives) with resources needed for success in college, career, and global citizenship. Students will demonstrate their learning by creating an e-portfolio. Cr 1.

## LCC 340 Exploring Careers, Choosing Life Roles

In this course, students relate self-knowledge to career and life roles, with an emphasis on gaining and managing career information; learning various career and life decision-making strategies; and communicating formative academic, co-curricular, and professional experiences in such formats as accomplishment statements, interviews, and updated eportfolios.

Cr 1.

## LCC 400 Finding Your Calling

In this course students assume active agency in career planning through networking, interviewing, and negotiating with prospective employers including the tools needed for career placement, such as cover lettesr, resumes, etc. Students will update their portfolios with archival evidence of abilities gained through the Common Core, their major, and co-curricular activities. Students will gain an understanding of the goals and outcomes for portfolio presentation. Cr 1.

## LCC 450 Internship

This course provides students the opportunity to assess potential career choices and the opportunity to acquire basic skills and on-line knowledge for a given career choice. Students participate in an online seminar in which they learn about and reflect on workplace issues.

Cr 3-6

## LCC 480 Senior Seminar

This course provides writing instruction experience for students from LAC's four degree programs. Students complete a major research and writing project addressing one of the four themes of the Common Core from an interdisciplinary approach. Prerequisite: ENG 100C or LCC 110C; LCC 200E or LCC 370E; HUM 300, and LOS 300 OR SBS 320.

Cr 3.

## SCI 100K Natural Science Topics

This lecture and laboratory course centers on four major topics: the biosphere, food and nutrition, health and illness, and the new genetics. Through an integration of the natural sciences, the course applies basic concepts to an understanding of current issues. Social and ethical concerns are discussed. No prerequisites.

Cr 4 .

## SCI 103 Basic Chemistry

This is a short course ( 16 hours) designed to present the basics of inorganic, organic and biochemistry to students who have never taken chemistry or did so many years ago. Topics include the metric system, atomic structure, bonding, compounds, chemical equations and reactions, ions, pH , functional groups, carbohydrates, proteins, lipids and nucleic acids. The course satisfies the chemistry prerequisite for biology, microbiology, and for anatomy and physiology. Prerequisite: MAT 009 or concurrent. Cr 1.

## SCI 105K Biological Principles I

An introduction to scientific principles underlying the unity and diversity of life. Prerequisite: students must have fulfilled the University minimum proficiency requirements in writing and mathematics. Cr 3.

## SCI 106K Laboratory Biology I

Laboratory experiences illustrating concepts and principles introduced in SCI105K. Must be taken concurrently with SCI 105K.

Cr 1.5.

## SCI 107 Biological Principles II

This is an integrated lecture-laboratory course introducing students to biological diversity. The lecture and laboratory each meet three hours weekly. Prerequisites: grades of C or higher in BIO 105 K and BIO 106K.

Cr 4.5.

## SCI 113 Principles of Chemistry I

A presentation of fundamental principles of chemical science. Thse principles will be presented in quantitative terms and illustrated by examples of their applications in laboratories and in ordinary non-laboratory experience. This course and SCI 114 K (normally taken concurrently) provide the basis for further study of chemistry. Prerequisite: satisfaction of USM math minimum proficiency requirements.

Cr 3.

## SCI 114 Laboratory Techniques I

Laboratory experiements to illustrate the principles that are presented in SCI 113K lectures. Three laboratory hours per week combining recitation and practical lab work. Corequisite: SCI 113K. Cr 1.

## SCI 115 Principles of Chemistry II

A continuation of SCI 113 K . This course is designed to provide the foundation for all further studies in chemistry and is a prerequisite for all upper-level chemistry courses. Prerequisite: a grade of C- or better in SCI 113K.

Cr 3.

## SCI 116 Laboratory Techniques II

Laboratory experiments to illustrate the principles that are presented in SCI 115 lectures. Three laboratory hours per week combining recitation and practical lab work. Prerequisite: a grade of C - or better in SCI 114K. Co-requisite: SCI 115.

Cr 1.

## SCI 153J AIDS: Biology, Social Policy, and the Law

AIDS is by definition a multi-disciplinary phenomenon that greatly impacts social policy, health care systems, personal relationships, the criminal justice system, and the legal system. To address the biomedical, ethical, and legal issues raised by AIDS in society, this course will inform students of the legal and public policy ramifications of AIDS while grounding this analysis in the biological and virologic facts of the disease.

Cr 3.

## SCI 170K Human Anatomy and Physiology I

This is the first course in a two-semester sequence in human anatomy and physiology. It introduces basic principles of physiology and anatomy through chemistry, cellular structure and function, genetics, and embryology. This course discusses several physiologic systems including the muscular, skeletal, and integumentary systems. Prerequisites: students should have an understanding of basic biology and chemistry from high school courses, GED, or successful completion of SCI 103 or SCI 100. SCI 170 K must be taken concurrently with SCI 171 K , the lab.

Cr 3.

## SCI 171K Human Anatomy and Physiology I Laboratory

Laboratory experiences illustrating topics introduced in SCI 170K. Must be taken concurrently with SCI 170K.

Cr 1.

## SCI 172 Human Anatomy and Physiology II

This is the second course in a two-semester sequence in human anatomy and physiology. Topics in this course will include the nervous system, sense organs, blood and circulatory system, immune function, respiratory system, digestion and metabolism, endocrine function, renal function, and electrolyte balance. Prerequisites: SCI 170K and SCI 171K. Must be taken concurrently with SCI 173, the lab. Cr 3.

## SCI 173 Human Anatomy and Physiology II Laboratory

Laboratory experiences illustrating topics introduced in SCI 172. Must be taken concurrently with SCI 172.

Cr 1 .

## SCI/SBS 209 Human Genetics

This course examines the role of heredity in human growth, development, and behavior. Decision making, ethical issues and societal responsibilities related to genetic disorders will be discussed. This course is approved as an equivalent to LCC 310 Science, Technology, and Society. Prerequisites: any laboratory science course.

Cr 3 .

## SCI 250K Applied Physics

An introductory course with a comprehensive presentation of the basic concepts and principles of physics. Lecture, problem solving, and laboratory experiments serve to strengthen the understanding of classical mechanics, vibrations and wave motion, light and optics. The course focuses on sound physical arguments and discussion of everyday experiences while providing practical examples that demonstrate the role of physics in other disciplines. Knowledge of spreadsheet software and trigonometry is essential. Prerequisite: college algebra. Cr 4.

## SCI 252 Medical Microbiology

This lecture and laboratory course introduces basic microbiology and focuses on the viruses, bacteria, protozoans, and multi-cellular organisms which cause human diseases. It also discusses the immune system. Prerequisite: SCI 105K/106K, BIO 108, SCI 170K/SCI 171K, SCI 172/173. Cr 4.

## SCI 305 Molecular Physiology

This lecture and lab course examines the linkage between cellular and organismal events and those at the molecular level. Particular attention is given to DNA replication, signal transduction and the control of transcription, genomics, proteomics, metabolism, and the compartmentalization of cellular functions. Prerequisites: one year of chemistry and SCI 209 and SCI 252 or equivalent.

Cr 4.

## SCI 315 Environmental Health with Lab

This course explores issues in environmental health from the dual perspectives of environmental issues and human health. A healthy environment includes species diversity, bountiful resources, and the absence of pollutants. Environmental health comprises those aspects of human health and disease that are determined by factors in the environment. It also refers to the theory and practice of assessing and controlling factors in the environment that can potentially affect human health. Prerequisites: SCI 107 and/or ESP 101.

Cr 4.

## SCI 340 Applied Botany

The growth, structure, reproduction, and physiology of plants will be studied, and the role of plants in human affairs will be discussed in this lecture and laboratory course. Prerequisites: SCI 105K/106K or a grade of B or higher in SCI 100K. Cr 4.

## SCI 350 Science Projects

This course is an independent study under the direction of a faculty member. Students develop and complete a laboratory or library project. Cr 1-3.

## SCI 355 Ecology

This lecture and laboratory course examines the theoretical bases upon which ecological investigations are based. The laboratory portion of the course consists primarily of fieldwork during which students complete an ecological assessment of a local habitat. Prerequisites: SCI $105 \mathrm{~K} / 106 \mathrm{~K}$ and ESP 101 K , or permission of instructor.

Cr 4.5.

## SCI 359 Cancer and Society

This course will use an epidemiological framework to explore the scientific background and genetic, social, physical, and biological determinants of cancer. The course will examine the response of individual, family, and society to a diagnosis of cancer. Traditional and non-traditional medical approaches to a diagnosis of cancer will be explored. This course is approved as a substitute for LCC 310. Cr 3.

## SCI 360 Environmental Issues

The goal of this course is to allow students to develop a comprehensive world view from which to evaluate current environmental issues and problems. Local, state, national, and international issues will be explained in light of concepts, theories, and data derived from many disciplines, including ecology, biology, ethics, sociology, and political science. Prerequisites: ESP 101K and a biology course or permission of instructor.

Cr 3.

## SCI 365 Marine and Coastal Biology

A field-based course examining three major coastal habitats: the rocky shore, the sand beach, and the salt marsh along with the interactions among the living organisms in the earth's oceans. The course will focus on the relationships between the different aquatic trophic levels. Topics include species systematics and adaptations, ecosystem structure, and the relationshhip between humans and the biological systems. Where possible, local examples will be utilized to illustrate these points. Prerequisites: SCI $105 \mathrm{~K}, 106 \mathrm{~K}, 107$, and ESP 101, or permission of instructor.

Cr 4 .

## SCI 380 Pathophysiology I

This course examines the biology of noninfectious illnesses. Emphasis will be placed on cellular biology, cancer, immunity, inflammation and the cardiac, pulmonary and renal systems. Prerequisites: microbiology, human anatomy, and physiology. Cr 3 .

## SCI 381 Pathophysiology II

This course examines the biology of noninfectious illnesses. The nervous, endocrine, digestive, hematological, reproductive, muscular and skeletal systems will be studied. Prerequisites: microbiology, human anatomy, and physiology. SCI 380 is not a prerequisite. Cr 3.

## SCI 398 Independent Study

Prerequisite: permission of the instructor. Cr 3.

## SCI 421 Natural Resource Policy

Examination of natural resource policies and evaluation procedures used by natural resource decision makers. Case studies focus on topics such as forest industry regulations, the Endangered Species Act, the Maine Environmental Priorities Project, transboundary ecosystems, aquatic and estuarine areas, and marine resources. Emphasis is on natural resource policy processes, conflict resolution through consensus building, and comparative risk assessment as it pertains to policy. Prerequisite: ESP 101 K or permission of instructor.

Cr 3.

## SCI 450 Science in the Classroom

This integrated lecture and laboratory course is designed for elementary teachers, summer camp counselors, parents, and others who wish to interest children in science. The course discusses the history of science teaching, science reform movements, and the development of science lesson plans. It provides knowledge of basic science and gives examples of inexpensive experiments which children can perform. Emphasis is placed on integrating science with the arts, math, humanities, and with social sciences. Maine State Department of Education, Division of Certification and Placement, accepts this course as an elementary science methods course. Prerequisites: two science courses. Cr 3.

## B.A. Degree in Social and Behavioral Sciences

This baccalaureate program combines perspectives from psychology, sociology, and anthropology as it seeks to enhance students' understanding of the psychosocial and cultural influences shaping individual lives and social institutions. The curriculum combines interdisciplinary courses in liberal arts with service learning and field experience opportunities to prepare students for careers in social services, mental health, law and public policy, early childhood care, and education.

Before taking 300-level courses in this major, students must have completed a 100 -level college writing course with at least a grade of C . No more than two courses from outside the major may be used as elective courses for the major without permission of the faculty. A critical component of this degree program is the internship, selected with the assistance of the faculty internship coordinator. Students identify an organization that will enable them to evaluate potential career opportunities and develop workplace skills. Prior to the internship students participate in a sequence of two, one-credit hour seminars (LCC 340/400) where they learn aspects of career decision making and launching a successful career.

Prerequisite Courses (12 credits) to be taken before 300-level courses
SOC 100J Introduction to Sociology
PSY 101J General Psychology I
PSY 102 General Psychology II
ANT 101J Anthropology: The Cultural View
Requirements for the Major (33 credits) Credits
LCC 150D Statistics for Informed Decision Making 3
LCC $\quad$ 370EW $\quad$ Toward a Global Ethics (writing instruction) 4
LCC 340 Exploring Careers, Choosing Life Roles 1
$\begin{array}{llll}\text { LCC } & 400 & \text { Finding Your Calling } & 1\end{array}$
LCC 450 Internship 3
$\begin{array}{llll}\text { LCC } & 480 & \text { Senior Seminar (writing instruction) } & 3\end{array}$
SBS 200J Human Growth and Development 3
SBS 300 Deviance and Social Control 3
or
SBS $310 \quad$ Childhood and Society (teacher preparation and early childhood studies)
SBS $320 \quad$ Writing in the Social and Behavioral Sciences
(writing instruction)
SBS 329 Research Methods 3
SBS 430 Applied Social Policy 3
Electives (18 credits)
Students will complete at least six of the following courses, selecting a minimum of two courses from each category:

Fundamentals

| SBS | 209 | Human Genetics |
| :--- | :--- | :--- |
| SBS | 305 | Child Development |
| SBS | 306 | Adolescence |
| SBS | 307 | Midlife and Adult Development |
| SBS | 311 | Theories of Personality |
| SBS | 341 | The Family |
| SBS | 342 | Gerontology |
| SBS | 345 | Race, Class, Gender |
| SBS | 360 | Culture, Behavior, and Personality |
| SBS | 390 | Brain and Behavior |
| Topics |  |  |
| SBS | 153 J | AIDS: Biology, Social Policy, and the Law |
| SBS | 301 | Group Dynamics |
| SBS | 302 | Interpersonal Behavior |
| SBS | 303 | Abnormal Psychology |
| SBS | 304 | Food, Culture, and Eating |
| SBS | 308 | Health, Illness, and Culture |
| SBS | 309 | The Psychology of Attachment in Early Childhood |


| SBS | 310 | Childhood and Society |
| :--- | :--- | :--- |
| SBS | 312 | Crime and Criminal Justice |
| SBS | 313 I | What is 'Race'? |
| SBS | 316 | Diversity in the Workplace |
| SBS | 333 | Death, Dying, and Denial |
| SBS | 334 | Spirituality |
| SBS | 335 | Legal Issues in Health and Human Services |
| SBS | 338 | Health Care Policies |
| SBS | 340 | Language Acquisition and Literacy Development |
| SBS | 343 | Substance Abuse |
| SBS | 344 | Violence: Causes and Control |
| SBS | 346 | Introduction to Social Services |
| SBS | 347 | Youth, Community, and Higher Education |
| SBS | 350 | Psychosocial Disorders in Childhood and Adolescence |
| SBS | 358 H | Motherhood: Political Institution, Cultural Icon, |
|  |  | Defining Experience |
| SBS | 361 | Psychology and Sociology of Women |
| SBS | 365 | Psychology of Dreams |
| SBS | 366 | Transforming Words: Poetry and Psychologies of Change |
| SBS | 367 | Healthy Learners Project |
| SBS | 375 | Infant Mental Health |
| SBS | 381 | Introduction to Globalization |
| SBS | 411 | Counseling and Psychotherapy with Adults |
| SBS | 435 | Children, Policy, and Law |
| SBS | 436 | Risk, Public Policy, and Society |
| SBS | 450 | Approaches to Assessing Individual Differences in Children |
| SBS | 470 | Study Abroad |

## Concentration in Counseling

This concentration provides students with an introduction to theory, topics, and skill areas relevant to professional applications in counseling. Organizing the choice of SBS electives through adoption of this concentration strengthens students' preparation for entry into variety of positions in or related to the helping professions, as well as for the pursuit of graduate study. Students doing so should complete the necessary paperwork so that counseling appears on their transcripts. These can be met in various ways. A concentration is a way of organizing the 6 required SBS electives. Two foundational courses are required, plus one each from categories A through D below. Substitutions must be approved by a faculty adviser. Any student who wants to fulfill the MHRT (Mental Health Rehabilitation Technician) certificate for the State of Maine must work closely with an advisor as early as possible.

| Foundational courses for this concentration: |  |  |
| :---: | :--- | :--- |
| SBS | 311 | Theories of Personality |
| SBS | 411 | Counseling and Psychotherapy |

Choose one course from each of the following four groups of courses. Any substitutions must be approved by faculty advisor:
A. Psychosocial Disorders and Services:
SBS 303 $\quad$ Abnormal Psychology;

| D. Applied Topics: |  |  |
| :---: | :--- | :--- |
| SBS | 308 | Health, Illness, and Culture |
| SBS | 343 | Substance Abuse |
| SBS | 304 | Food, Culture, and Eating |
| SBS | 342 | Gerontology |
| SBS | 344 | Violence: Causes and Control |
| SBS | 450 | Approaches to Assessing Individual Differences |

## Minor and Concentration in Early Childhood Studies

This minor (also available as a concentration) provides the skills needed of professionals working with young children and their families, and provides the academic background required for graduate study or advanced training in the field. Students pursuing ECS as either a minor or a concentration should complete the necessary paperwork so that ECS appears on their transcript. SBS students pursuing a minor in ECS are required to take at least 4 extra courses ( 12 credits) in addition to the requirements of the major. These can be met in various ways. In contrast, a concentration is simply a way of organizing the 6 required SBS electives, one from each of the categories below. Any substitutions must be approved by faculty advisor. Any student who wants to fulfill the MHRT (Mental Health Rehabilitation Technician) certificate for the State of maine must work closely with an advisor as early and thoroughly as possible.

| 1. Child Development |  |  |
| :--- | :--- | :--- |
| SBS | 305 | Child Development or |
| SBS | 309 | The Psychology of Attachment in Early Childhood |

Note: SBS 309 would be an appropriate choice for students with significant prior learning in developmental psychology. SBS 309 is not recommended for students in other majors who are taking a minor in ECS.
2. Family
SBS 341 Family or

SBS 399 Family Systems
3. Leadership

SBS 301 Group Dynamics or
SBS 302 Interpersonal Behavior
4. Systems

SBS 310 Childhood and Society or
EDU 200 Education in the U.S or
SBS 346 Introduction to Social Services
5. Children and Evaluation

SBS 450 Approaches to Assessment or
SBS 350 Psychosocial Disorders or
SBS 399 Infant Mental Health
6. Teaching/Preparing Children for Learning

SBS 340 Language Acquisition or
EDU 336 Children's Literature

## Certificate in Public Health

The certificate in public health addresses a need for awareness of public health issues not only in Maine, but the whole world. Evolutionary and multicultural aspects of diseases and their interface with human populations; health care systems; food utilization and governmental policies; epidemics of flu, HIV/AIDS, and drugresistant strains of TB; as well as the threat of bioterrorism, are daily headlines in the media. Therefore, to prepare undergraduates, decision makers, and policy advocates to be able to understand the multitude of public health concerns and to be able to apply that knowledge is essential to any safe and functioning society. The following courses are required:

| LOS/SBS | 335 | Legal Issues in Health and Human Services |
| :--- | :--- | :--- | :--- |
| SBS/SCI | 399 | Introduction to Public Health |
| SCI | 399 | Introduction to Epidemiology |

In addition one of the following elective courses must be completed:

## Concentration in Public Health

The concentration in public health addresses a need for awareness of public health issues. Evolutionary and multicultural aspects of diseases and their interface with human populations; health care systems; food utilization and governmental policies; epidemics of flu, HIV/AIDS, and drug-resistant strains of TB; as well as the threat of bioterrorism, are daily headlines in the media.

This concentration is intended to help SBS majors structure the choice of their electives and to prepare them to become decision makers and policy advocates. It is also intended to shape their ability to understand myriad public health concerns and their facility in applying pertinent theoretical and practical knowledge to create a safe and functioning society. Professions that utilize knowledge of public health may be in delivery of mental health services, gerontological services, or child and family services.

The following courses are required:
SBS/SCI 399 Introduction to Public Health
SBS/SCI 399 Introduction to Epidemiology
SBS/LOS 335 Legal Issues in Health and Human Services
SBS 308 Health, Illness, and Culture
One elective course will be chosen from the following:
SBS 304 Food, Culture and Eating
SBS/SCI 399 Public Health Nutrition
One elective course will be chosen fromn the following:
SBS/LOS 338 Health Care Policies
SBS 341 Family
SBS 343 Substance Abuse
SBS 344 Violence: Causes and Control
SBS 345 Race, Class and Gender
SBS 350 Psychosocial Disorders of Childhood and Adolescence
SBS 353 AIDS: Biology, Social Policy, and the Law
SBS 381 Globalization and Development
SBS 399 Death and Dying
SBS 399 Ethnicity, Immigration, and Identity
SBS 399 Prevention and Wellness
SBS 399 Working with Diverse Populations

## LCC 100 Profiles, Proficiencies, Portfolios

This course engages students in personal assessment and goal setting. It introduces students to LAC's interdisciplinary, writing-intensive, and stu-dent-learning centered culture. Students link their own stories (what has brought them to this point in their personal, academic, and professional lives) with resources needed for success in college, career, and global citizenship. Students will demonstrate their learning by creating an e-portfolio. Cr 1.

## LCC 150D Statistics for Informed Decision Making

This course introduces and applies quantitative analyses to address real world questions. It applies descriptive statistics, sampling and significance testing, correlation, and regression analysis to issues related to the four themes of the Core. The course provides the opportunity to interpret and analyze statistical decision making, and identifies data misconceptions and misuses.

Cr 3.

## LCC 340 Exploring Careers, Choosing Life Roles

In this course, students relate self-knowledge to career and life roles, with an emphasis on gaining and managing career information; learning various career and life decision-making strategies; and communicating formative academic, co-curricular, and professional experiences in such formats as accomplishment statements, interviews, and updated eportfolios.

Cr 1.

## LCC 370E/W Toward a Global Ethics

This writing instruction course assists students in articulating and assessing their own values. It examines the range of ethical theories and positions and explores the influence of particular cultural ideologies on ethical beliefs. The course considers the ethical principles implied by democracy, sustainability, justice, and difference. It examines ethical issues and dilemmas faced by individuals, organizations, and nations while exploring personal and collective decision-making processes in a global context. Prerequisite: ENG 100C, or LCC 110C, or LCC 111C.

Cr 4.

## LCC 400 Finding Your Calling

In this course students assume active agency in career planning through networking, interviewing, and negotiating with prospective employers including the tools needed for career placement, such as cover letter, resumes, etc. Students will update their portfolios with archival evidence of abilities gained through the Common Core, their major and co-curricular activities. Students will gain an understanding of the goals and outcomes for portfolio presentation.

Cr 1.

## LCC 450 Internship

This course provides students the opportunity to assess potential career choices and the opportunity to acquire basic skills and on-line knowledge for a
given career choice. Students participate in an online seminar in which they learn about and reflect on workplace issues.

Cr 3-6.

## LCC 480 Senior Seminar

This course provides writing instruction experience for students from LAC's four degree programs. Students complete a major research and writing project addressing one of the four themes of the Common Core from an interdisciplinary approach. Prerequisite: ENG 100C or LCC 110C; LCC 200E or LCC 370E; HUM 300, and LOS 300 OR SBS 320.

Cr 3.

## SBS 153J AIDS Biology, Social Policy, and the Law

AIDS is by definition a multi-disciplinary phenomenon that greatly impacts social policy, health care systems, personal relationships, the criminal justice system, and the legal system. To address the biomedical, ethical, and legal issues raised by AIDS in society, this course will inform students of the legal and public policy ramifications of AIDS while grounding this analysis in the biological and virologic facts of the disease. This course is cross-listed with SCI 153J.

Cr 3.

## SBS 200J Developmental Psychology

This course introduces developmental theory and research which encompasses the entire life span. Emphasis will be placed on prenatal development through adolescence, with an overview of adult development. This course is cross-listed with HRD 200J. Prerequisite: second-semester freshman or above.

Cr 3.

## SBS/SCI 209 Human Genetics

This course will examine the role of heredity in human growth, development and behavior. Decision making, ethical issues and societal responsibilities related to genetic disorders will be discussed. This course is approved as an equivalent to LCC 310 Science, Technology and Society. Prerequisite: any laboratory science course. Cr 3.

## SBS 300 Deviance and Social Control

The course examines the historical and relative notion of deviance and the nature(s) and type(s) of social control.

Cr 3.

## SBS/LOS 301 Group Dynamics

This course gives students an understanding of how people behave in groups and the skills needed by group members to participate effectively in group activities. It provides a theoretical foundation for how groups function, with focus on group process and development; and it discusses how these theories can be applied to a wide range of group settings. This course uses experiential techniques to help students develop critical skills and understanding of group dynamics.

Cr 3.

## SBS/LOS 302 Interpersonal Behavior

The goal of this course is to familiarize students
with interpersonal dynamics and the tools to make organizational interactions more effective. Through assessments, exercises, and discussions, students will examine how perceptions of self and others influence people's behavior in a variety of situations. As good communication is critical in building sound interpersonal relationships, students will have many opportunities to fine-tune writing and speaking skills.

Cr 3.

## SBS 303 Abnormal Psychology

This course presents an introduction to the classification, diagnosis, and etiology of what is considered "mental illness." Cultural aspects of "abnormality" will be emphasized, as will integrative models of the causes of mental disorders. This integrative approach considers the complex interplay between biological, psychological, interpersonal, and cultural factors as they contribute to the development and expression of psychological disorders.

Cr 3.

## SBS 304 Food, Culture, and Eating

This course examines cultural beliefs and practices surrounding diet, food, cooking, eating, and nutrition. Students explore how behaviors and attitudes toward food and eating influence and are shaped by culture. Discussion may include food and healing, the social functions of food, food as represented in the media, food production and food politics, the diet industry, and eating disorders. Students gain insight into their own behaviors and attitudes toward food and eating, as well as those of today's global cultures.

Cr 3.

## SBS 305 Child Development

This course examines the development and behavior of children from conception through middle childhood, and introduces topics in adolescence. Theoretical frameworks and research upon which current knowledge in child development is based will be considered, as well as applications to contemporary topics in child welfare and education. Prerequisite: SBS/HRD 200J recommended. Cr 3.

## SBS 306 Adolescence

An overview of the psychological and social dimensions of adolescent development, including consideration of gender and group differences in the experience of the physical, cognitive, and social transformations of adolescence.

Cr 3.

## SBS 307 Midlife and Adult Development

A consideration of the ongoing challenges and opportunities for development throughout the adult years, with emphasis on midlife and its associated physical, personality, and sociocultural processes. Psychological and other social science perspectives on the study of midlife will be complemented by examples from field interviews, folk tales, and imaginative literature.

Cr 3.
SBS 308 Health, Illness, and Culture
An examination of the cultural dimensions of health
and illness. Consideration will be given to contemporary issues such as the definition of health and illness, the distribution of diseases across different populations, cross-cultural variations in treatment models, and the implications thereof for health and human service professionals.

Cr 3.

## SBS 309 The Psychology of Attachment in Early Childhood

This course focuses on the critical importance of attachment process in early childhood and the emotional development of young children as the basis of forming relationships throughout one's life. Stages in attachment process will be presented as well as types and categories of attachment. Stages of emotional development in early childhood will also be presented with critical accomplishments in each stage. Positive and negative influences on both attachment and emotional development will be discussed as well as implications for attachment relationships throughout the lifespan.

Cr 3 .

## SBS 310 Childhood and Society

This course weaves several broad themes regarding children and childhood in society, including how socio-historical circumstances shape our perceptions of children and childhood as a distinct life stage; how various agents of socialization including family, educational systems, and media shape contemporary childhood socialization; how children are co-constructors of childhood and society; and how the experiences of childhood are shaped by ethnicity, race, class, and gender.

Cr 3 .

## SBS 311 Theories of Personality

This course is an in-depth study of the major theories of personality. It includes consideration of historical developments and cultural differences in the area of personality theory and research. The specific understanding of psychopathology contained in the theories will also be explored. Cr 3.

## SBS 312 Crime and Criminal Justice

A survey course of the social and cultural factors that influence crime and delinquency. Focus will be on misconceptions and myths about crime and the institutional responses to crime in our society. Cr 3.

## SBS/HUM 313I What is 'Race'?

The concept of race is one of the most contentious ideas of modern society. This course will examine the history and biology of race, and trace the development of the idea of race in American culture. Students will examine evolution to understand diversity in the human species. They will integrate this information with historical attempts to define race so as to gain a better understanding of race and racial issues.

Cr 3.

## SBS/LOS 316 Diversity in the Workplace

Using historical, socio-economic, and psychological perspectives, students will learn about the challenges diverse members of U.S. society, such as
women, people of color, people from marginalized classes, and those from other countries, have had and continue to face. Students will gain an understanding of how the workplace may affect diverse peoples and how others can learn to make the workplace more hospitable. A primary focus of this course will be on examining beliefs, behaviors, or unconscious attitudes that perpetuate the oppression and subordination of diverse members of society in the workplace, while also looking at how increased diversity is adding to workplace productivity, creativity, and learning. Readings are drawn from the social sciences and humanities to provide an interdisciplinary approach to the topic.

## SBS 320 Writing in the Social and Behavioral Sciences

This writing instruction course will engage students with the different modes of thinking and communicating in the social and behavioral sciences disciplines of psychology, sociology, and anthropology. Students will study these disciplines' writing indepth. Models of disciplinary writing are analyzed and practiced. Prerequisites: LCC110, LCC 200EW or LCC370EW.

Cr 3 .

## SBS/LOS 329 Research Methods

An introduction to quantitative and qualitative research methods which can be used in organizational planning and decision making and in the social and behavioral sciences. The course will cover topic areas related to the application of appropriate methods of inquiry and includes completion of an applied project. Prerequisite: LCC 150D.

Cr 3.

## SBS/HUM 334 Spirituality

Spirituality, variously defined, is a central part of human experience, constituting important levels of consciousness and meaning. This course will investigate the experience and development of spirituality over the life span as depicted in religious, psychological, "New Age," and imaginative literatures. Cr 3 .

## SBS 333 Death, Dying, and Denial

An interdisciplinary consideration of death and dying that may include biological, historical, and various social science perspectives, this course examines cross-cultural variations in beliefs and practices related to death, care for the dying, and bereavement. It also explores the personal, social, and cultural implications of denying death and refusing to mourn.

Cr 3.

## SBS/LOS 335 Legal Issues in Health and Human Services

"This course examines the legal framework underlying the delivery of health and human services with an emphasis on current socio-legal problems including the rights of clients and the responsibilities of workers.

Cr 3.

## SBS/LOS 338 Health Care Policies

This course provides a comprehensive introduction
to health care policy and the organization of the American health care system. Critical issues confronting the consumption, delivery, and financing of health care will be considered. Health care systems in other countries and around the United States will be examined.

Cr 3.

## SBS/LAC 340J Language Acquisition and Literacy Development

This course provides students with opportunities to apply knowledge of fundamental principles and means of investigation used in the study and explanation of language acquisition and literacy development. It plays a foundational role in fostering students' understanding of literacy, which is key to their development as professionals charged with enhancing children's literacy development.

Cr 3 .

## SBS 341 The Family

A contemporary, interdisciplinary approach to the study of the family that includes an examination of family structures, familial relationships, and the impact of historical change on these structures and relationships.

Cr 3 .

## SBS 342 Gerontology: Perspectives on the Long Life

A review of current theories and issues related to aging and the significance of increasing numbers of people living longer. Consideration will be given to physical, psychological, and sociological aspects of aging as well as to cultural perspectives regarding growing older and the elderly. Applications will focus on facilitating health, well-being, and meaning in later life.

Cr 3

## SBS 343 Substance Abuse

This course considers patterns of use of drugs, the bases of their effects and associated harms, and the history of and current options for prevention and intervention efforts. Consideration will be given to the role of society and public policy in influencing our thinking and behavior concerning substance use and abuse.

Cr 3

## SBS 344 Violence: Causes and Control

This course studies violence and the possibilities of living peacefully as explored in psychological and sociological works, in fiction, drama, and poetry, and in writings on anthropology, social policy, and religion. The course reviews the causes of violent and aggressive behaviors and specific approaches to the prevention and control of these behaviors. Cr 3 .

## SBS 345 Race, Class, Gender

This course examines the impact of race, class, and gender inequality on individual and social experiences in the United States. Students will be required to read materials on issues concerning inequality, power, privilege, and social justice. This will be followed by intense discussions of these topics. The course may include projects pertaining to diversity issues in the local community.

Cr 3

## SBS 346 Introduction to Social Services

This course examines the profession of social work from both historical and contemporary perspectives. Students will explore specialty areas in social work such as mental health and disability, crime and violence, and family work. Career options in the social work field will be explored.

Cr 3.

## SBS 347 Youth, Community, and Higher Education

This interdisciplinary, community-based elective provides students with the opportunity to work with diverse vulnerable youth in hopes of promoting higher education and encouraging resiliency. The course will be conducted through weekly sessions which will include both a discussion/supervision piece and group program activity piece. Students will take on roles as mentors, allies, and advocates for youth, and as organizers and developers for the group of youth as a whole as well as for the local community. Students will learn to work with adolescents, families, and communities in a comprehensive and integrated manner. Prerequisites: PSY 101 and 102, permission of instructor.

Cr 4.

## SBS 350 Psychosocial Disorders in Childhood and Adolescence

This course includes readings and discussion of the etiology and manifestation of psychosocial disorders in childhood and adolescence. Topic areas, including approaches to intervention, will be considered from developmental, psychological and sociological perspectives.

Cr 3.

## SBS/HUM 358H Motherhood: Political Institution, Cultural Icon, Defining Experience

This interdisciplinary course examines motherhood from the perspectives of cultural studies and psychology. Consideration of historical and cultural depictions of mothers will elucidate the particular faces and functions of motherhood as they are variously conceived. Modern psychological theories will be discussed as the means by which cultural demands regarding mothering are currently being prescribed. The manner in which the various powers attributed to mothers contribute to the construction of particular social policies and practices will also be considered.

## SBS 360 Culture, Behavior, and Personality

An examination of interactions between culture, behavior, and personality through the life span. Cross-cultural variations and commonalities in child rearing practices, gender roles, and conceptions of self are among topics to be considered. Applications will be made to contemporary issues in multicultural relations in community and professional settings. Prerequisites: PSY 102 and ANT 101J.

## SBS 361 Psychology and Sociology of Women

This course approaches the study of the psychological and sociological realities of women's lives from
a feminist perspective. This involves a critical examination of cultural assumptions regarding girls and women and also of the methodological biases within traditional social science research. In addition, students will look at the ways in which systems of discrimination based on race, class, and gender affect women's lives, and enhance their own appreciation of the diversity in women's social realities and experiences.

Cr 3.

## SBS 365 Psychology of Dreams

This course considers dreams from cross-cultural and historical perspectives as well as the theories of dream interpretation articulated in the works of Freud, Jung, and others. The course is designed to enhance students' understanding of the theoretical importance of dreams in the history of psychology, to enrich their appreciation of dream images, and to refine their ability to apprehend the significance of their own and others' dreams.

Cr 3.

## SBS/HUM 366 Transforming Words: Poetry and Psychologies of Change

This course examines the interrelationships between poetry and psychology, with a focus on transformations of meaning in words and lives. Topics will include the varying functions of poetry over the life span, poets' reflections on how and why they write, poetry as political witness and community catalyst, therapeutic uses of poetry, and the distinctive qualities of "poetic" language. Students have the option of pursuing community-based projects involving poetry.

Cr 3 .

## SBS 367 Healthy Learners Project

The Healthy Learners Project provides training in individual, non-directive play intervention to support the emotional and educational achievement of at-risk children in their first three years of elementary education. This service-learning course consists of training, direct individual work with children, and scholarship supported in a biweekly course meeting throughout the academic year. Supervision of the student's work is provided both in local elementary schools and in class. Prerequisite: permission of instructor.

Cr 3.

## SBS 375 Infant Mental Health

This course focuses on post-fetal dependence and development (the fourth trimester), brain development, early communication, infant cuing, the calming reflex, and how an infant learns to view and respond to the world. The concepts of infant mental health as relational, reflective, and interdisciplinary will be presented as well as skills and strategies for supporting positive infant mental health. Prerequisite: HRD/SBS 200J recommended. Cr 3.

## SBS/LOS 381 Introduction to Globalization

This course examines the economic, political, social, and cultural aspects of globalization from an interdisciplinary perspective. The purpose is to get a sense of clarity about what globalization is, how it is affecting
people around the world, and why there is an increasingly robust resistance to it on the grassroots level. We will also discuss how to empower ourselves while being socially responsible in this rapidly changing world. Course format includes discussion, case study, and student presentation on research projects. This course is cross-listed with LOS 381. Prerequisites: SOC 100J, ANT 101J.

Cr 3 .

## SBS 390 Brain and Behavior

Survey of biological and environmental factors affecting the relationship between brain/mind and behavior. Topics will include brain organization, neural transmission, stress and emotion, learning, memory, violence, psychopathology, and the development of consciousness.

Cr 3.

## SBS 398 Independent Study

Prerequisite: junior standing and permission of instructor.

## SBS 399 Special Topics

SBS 411 Counseling and Psychotherapy
A study of the conceptual foundations, fundamental characteristics, and ethical principles involved in the process of psychological counseling. Alternative models (e.g., individual, group, family) of therapy will be explored in relation to theories of personality development and functioning. Special focus will also be placed on counseling approaches in community mental health areas such as trauma and crisis intervention. Prerequisite: SBS 311.

Cr 3 .

## SBS/LOS 430 Applied Social Policy

A review of contemporary social policy alternatives and an examination of social policy making processes at both the macro- and micro-levels. Students complete an applied social policy project which might take the form of a policy paper, a grant proposal or written legislative testimony for a community agency. Prerequisites: LCC 150 or

LOS/SBS 329 and either LCC 200ES or LCC 370EW as well as junior standing or permission of the instructor.

Cr 3 .

## SBS 435 Children, Policy, and Law

This course explores the interface of legal policy related issues and problems in childhood. The relationship among legal, public policy, and psychological concepts will be framed within family relationships, legal decision making, and the judicial and legislative allocation of power between parents and the state. Topics will include the state of knowledge about outcomes for children's emotional health and development related to the risks and protections that legal intervention brings. Cr 3

## SBS/LOS 436 Risk, Public Policy, and Society

This course considers the variety of ways in which risks, especially risks to the environment and to health, are measured, perceived, communicated, and acted upon in our society. Perspectives will be drawn from health fields, natural sciences, and political science, as well as from the social sciences. Cr 3 .

## SBS 450 Approaches to Assessing Individual Differences in Children

A survey of methods used to evaluate the developing child for abilities and disabilities. There will be an emphasis on understanding the interrelatedness of social, psychological, educational, physical-developmental, and health related assessments, as well as the cultural meaning of individual and group assessments. Prerequisites: PSY 102, SBS 329. Cr 3.

## SBS 470 Study Abroad

The goal of this course is to provide an experiential learning opportunity for students to increase their global awareness. Through a variety of readings, overseas traveling, site experiences, and reflection exercise, students will examine a diversity of sociocultural issues in a foreign environment. Prerequisite: instructor permission. Cr 3

## B.S. Degree in Leadership and Organizational Studies

The baccalaureate degree in leadership and organizational studies (LOS) combines a liberal arts program with the study of how organizations operate and how leadership functions. It emphasizes the critical need to understand and work with people, the dynamics of change, the interdisciplinary nature of organizational operations, and the practical application of theories and leadership concepts. Drawing on faculty from diverse backgrounds, leadership and organizational studies is designed to prepare students for work in the nonprofit, public, or private sectors. The core courses of the LOS major will introduce students to the theory and practice of organizational behavior and leadership with emphasis on communication skills, problem solving, critical thinking, key quantitative skills, and team functioning. A critical component of the LOS degree program is the internship, selected with the assistance of the director of field experience. Students identify an organization that will enable them to evaluate potential career opportunities and develop workplace skills. Prior to the internship, students participate in an intensive seminar where they learn aspects of career decision making and launching a successful career. In addition to completing these specific course requirements for the major, baccalaureate degree students must meet the proficiency and residency requirements of the University of Southern Maine and complete the Core curriculum as well as a minimum of 120 credit hours of coursework. Prerequisites for major courses may be met through specific courses, through any one of several programs of prior learning assessment sponsored by USM, or through waiver by the instructor of the course. Before taking 300 -level courses in this major, students must have completed a 100-level college writing course with at least a grade of $\mathrm{C}+$. No more than two courses from outside the major may be used toward completion of the requirements for the major without permission of the faculty.

Prerequisites (7 credits)

| LAC | 112 | Microsoft Excel-Spreadsheets (1 credit) |
| :--- | :--- | :--- |
| LAC | 150 | Microcomputers and Applications |
| LOS | 250 | Organizational Accounting, or its equivalent |

Requirements for the Major
Credits
LOS Requirements ( 29 credits)
LCC 150D Statistics for Informed Decision Making 3

LCC 370E/W Toward a Global Ethics 4
LCC 450 Internship 3
LCC 480 Senior Seminar 3
LOS $299 \quad$ Writing in the Major 1
LOS 300 Organizational Theory 3
LOS 301 Group Dynamics 3
LOS 304 Organizational Budgeting 3
LOS 350 Leadership 3
LOS 440 Organizational Change and Development 3
Students who plan to attend graduate school or pursue careers in consulting or human resource administration should also enroll in LOS 329 Research Methods.

## Individual Concentrations (18 credits)

While taking the LOS core, each student will work closely with a faculty advisor to identify six LOS electives ( 18 credits) to complete the requirements for the major.

When choosing electives, students may wish to consider the following concentrations, minor areas, or general electives:

Information Technology (available as a minor)
This concentration/minor is offered in collaboration with Central Maine Community College (CMCC) and requires the completion of the following courses:

MAT $108 \quad$ College Algebra
LAC $150 \quad$ Microcomputers and Applications
LOS 318 Database Management
LOS 334 Integrated Software Packages (LAC)
The following courses are offered at CMCC:
LOS 319/CPT 235 Introduction to Networking
LOS 320/CPT 238 Networking Support and Troubleshooting
LOS 321/CPT 147 Introduction to PC Repair/Operating Systems

Electives:
LAC/LOS 307 Web Design (LAC)
LAC/LOS 331/
CPT 225 Advanced Personal Computer Repair
BUS 191 Introduction to Structured Programming
LOS students may also wish to consider the global studies minor offered at LAC
Human Resources
This concentration requires the completion of the following courses:

| LOS | 302 | Interpersonal Behavior |
| :--- | :--- | :--- |
| LOS | 312 | Human Resource Administration |
| LOS | 314 | Employee Relations |
| LOS | 315 | Training and Development |
| LOS | 316 | Diversity in the Workplace |
| LOS | 327 | Leading through Conflict |

Human Services
This concentration requires 6 of the following courses:

| LOS | 302 | Interpersonal Behavior |
| :---: | :--- | :--- |
| LOS | 322 | Leadership in the Public/Nonprofit Sectors |
| LOS | 325 J | State and Local Government |
| LOS | 329 | Research Methods |
| LOS | 335 | Legal Issues |
| LOS | 338 | Health Care Policies |
| LOS | 373 | Managing Nonprofits |
| LOS | 430 | Applied Social Policy |
| ther LOS Electives include: |  |  |
| LCC | 310 J | Science, Technology and Society |
| LOS | 323 | The Media and Politics |
| LOS | 330 | Leadership in Different Cultures |
| LOS | 381 | Introduction to Globalization |
| LOS | 412 | Topics in Human Resource Management |
| LOS | 436 | Risk, Public Policy, and Society |
| LOS | 470 | Leadership Study Abroad |
| LOS | 487 | Consulting in Organizations |

## LCC 100 Profiles, Proficiencies, Portfolios

This course engages students in personal assessment and goal setting. It introduces students to LAC's interdisciplinary, writing-intensive, and stu-dent-learning centered culture. Students link their own stories (what has brought them to this point in their personal, academic, and professional lives) with resources needed for success in college, career, and global citizenship. Students will demonstrate their learning by creating an e-portfolio. Cr 1.

## LCC 150D Statistics for Informed Decision Making

This course introduces and applies quantitative analyses to address real world questions. It applies descriptive statistics, sampling and significance testing, correlation, and regression analysis to issues related to the four themes of the Core. The course provides the opportunity to interpret and analyze statistical decision making, and identifies data misconceptions and misuses.

Cr 3.

## LCC 310J Science, Technology, and Society

This course will examine not only the classic question of how technology shapes society, but also the less frequently considered question of how society shapes technology using timely, internationally focused examples to illustrate the social, political, economic, and cultural dimensions of technology. Through an intercultural perspective, students will grow to understand that technological changes and events are a worldwide phenomenon. Contemporary themes, including nuclear threats, television violence, and the environment will help students understand the forces that produce technological change and the consequences that result. Cr 3.

## LCC 340 Exploring Careers, Choosing Life Roles

In this course, students relate self-knowledge to career and life roles, with an emphasis on gaining and managing career information; learning various career and life decision-making strategies; and communicating formative academic, co-curricular, and professional experiences in such formats as accomplishment statements, interviews, and updated e-portfolios.

Cr 1.

## LCC 370E/W Toward a Global Ethics

This second tier writing instruction course assists students in articulating and assessing their own values. It examines ethical theories and explores the influence of particular cultural ideologies on ethical beliefs. The course considers the ethical principles implied by democracy, sustainability, justice, and difference. It examines ethical issues and dilemmas faced by individuals, organizations, and nations while exploring personal and collective decisionmaking processes in a global context. Prerequisite: ENG 100C or LCC 110C.

Cr 4 .

## LCC 400 Finding Your Calling

In this course students assume active agency in career
planning through networking, interviewing, and negotiating with prospective employers including the tools needed for career placement, such as cover letter, resumes, etc. Students will update their portfolios with archival evidence of abilities gained through the Common Core, their major and co-curricular activities. Students will gain an understanding of the goals and outcomes for portfolio presentation. Cr 1.

## LCC 450 Internship

This course provides students the opportunity to assess potential career choices and the opportunity to acquire basic skills and on-line knowledge for a given career choice. Students participate in an online seminar in which they learn about and reflect on workplace issues.

Cr 3-6.

## LCC 480 Senior Seminar

This course provides writing instruction experience for students from LAC's four degree programs. Students complete a major research and writing project addressing one of the four themes of the Common Core from an interdisciplinary approach. Prerequisite: ENG 100C or LCC 110C; LCC 200E or LCC 370E; HUM 300, and LOS 300 OR SBS 320.

Cr 3.

## LOS 250 Organizational Accounting

This course will introduce students to the basic concepts of accounting that they will need to understand financial processes in private, public, and not-for-profit organizations.

Cr 3.

## LOS 299 Writing in the Major

This lab is designed to be taken in conjunction with LOS 300 and is required of all LOS majors. Cr 1.

## LOS 300 Organizational Theory

This course provides an overview of organizational dynamics. Current organizational issues are analyzed using structural, human resource, cultural, and political frameworks and the case method. Issues include leadership, organizational design, planning, change, decision making, communication, and control. A good course for students interested in how organizations work.

Cr 4.

## LOS/SBS 301 Group Dynamics

This course gives students an understanding of how people behave in groups and the skills needed by group members to participate effectively in group activities. It provides a theoretical foundation for how groups function, with focus on group process and development; and it discusses how these theories can be applied to a wide range of group settings. This course uses experiential techniques to help students develop critical skills and understanding of group dynamics.

Cr 3.

## LOS/SBS 302 Interpersonal Behavior

The goal of this course is to familiarize students with interpersonal dynamics and the tools to make organizational interactions more effective. Through
assessments, exercises, and discussions, students will examine how perceptions of self and others influence people's behavior in a variety of situations. As good communication is critical in building sound interpersonal relationships, students will have many opportunities to fine tune writing and speaking skills.

Cr 3.

## LOS 304 Organizational Budgeting

This course assesses the theory and practices of financial management in different forms of public and private organizations. Emphasizes the relationship between financial decision making and organizational policy and strategy. Topics covered will include fundamental accounting principles, financial forecasting, the use of spreadsheets, and budgeting. Prerequisites: LOS 300, ACC 110, and LAC 112. Cr 3.

## LOS/LAC 305/CPT 130 Programming with Visual Basics

This course is an introduction to modern structured programming on a microcomputer using a state-of-the-art object oriented programming language. It covers all standard control and logic structures, arrays, functions, sub-routines, and data files. Major emphasis is given to an ongoing consideration of problem-solving techniques as they apply to simple and complex programming situations. Programming objects are studied extensively, along with events, properties, and methods. Prerequisite: ABU 190, or permission of instructor. Offered at CMCC. Cr 3.

## LOS/LAC 307 Web Design

This course will present in-depth Web page design for non-programmers. This will be accomplished primarily through learning a full-featured Web design application, MS Front Page. The course also includes an exploration of HTML, DHTML, and some experience with Web scripting languages. Finally server-side Web strategies will be studied. Students will be expected to design and implement Web pages containing many of the features learned in class. Prerequisites: ABU 180/181 and/or ABU 190, LAC 150, or significant Windows and Windows application experience, along with experience on the Internet using a Web browser. Cr 3.

## LOS 312 Human Resource Management

This course focuses on the procedures and processes associated with the management of human resources within organizations. Topics include recruitment, staff development, job analysis, personnel systems, and training.

Cr 3.

## LOS 314 Employee Relations

This course provides an understanding of the trends in legal, social, and economic aspects of United States labor-management relations. Topics include a historical overview of labor law, grievance procedures, the negotiation process, equal opportunity, and personnel rules. Includes case studies and simulated bargaining and arbitration exercises. Cr 3 .

## LOS 315 Training and Development

This course provides students with a theoretical framework for adult learning as it applies to the training and development process. Topics covered include the assessment of learning needs and setting of objectives; the design and facilitation of learning processes such as workshops, on-the-job training, self-directed learning, and computer-based training; and the assessment of outcomes. Students will design and deliver a training program as a major project for this course.

Cr 3.

## LOS/SBS 316 Diversity in the Workplace

Using historical, socio-economic, and psychological perspectives, students will learn about the challenges diverse members of U.S. society, such as women, people of color, people from marginalized classes, and those from other countries, have had and continue to face. Students will gain an understanding of how the workplace may affect diverse peoples and how others can learn to make the workplace more hospitable. A primary focus of this course will be on examining beliefs, behaviors, or unconscious attitudes that perpetuate the oppression and subordination of diverse members of society in the workplace, while also looking at how increased diversity is adding to workplace productivity, creativity, and learning. Readings are drawn from the social sciences and humanities to provide an interdisciplinary approach to the topic.

Cr 3.

## LOS/LAC 318 Database Management

This course introduces skills and builds proficiency in database management. It is taught on PC computers using the latest version of Microsoft Access and is designed to help students develop competencies in a variety of database processing functions. Students become proficient in setting up databases, managing data, creating reports, using report enhancements, and manipulating data. Prerequisite: LAC 150 or equivalent.

Cr 3 .

## LOS/LAC 319/CPT 235 Introduction to Networking

This course is an introduction to the installation, maintenance, and repair of personal computer networks. It provides students with an elementary understanding of network systems including communication components, LAN protocols, standards (de facto/de juri), system architecture, network software, and the fundamentals of network installation and repair. Offered at CMCC.

Cr 3 .

## LOS/LAC 320/CPT 238 Networking Support and Troubleshooting

This advanced course addresses the installation, maintenance, and repair of personal computer networks. It provides students with an advanced understanding of network systems including software configuration, troubleshooting, security, tools, design strategies, and employee training. Offered at CMCC.

Cr 3 .

## LOS/LAC 321/CPT 147 Introduction to Personal Computer Repair/Operating Systems

This course is an introduction to the installation, maintenance, and repair of personal computers and related equipment. It provides students with an elementary understanding of PC environments including system components, peripherals, operating systems, component/card interface, and the fundamentals of repair. Offered at CMMC.

Cr 3.

## LOS 322 Leadership in the Public/Nonprofit Sectors

This course examines the basic processes through which public policy is formulated, adopted, and implemented in the United States. Prerequisite: junior standing or permission of the instructor. Cr 3.

## LOS 323 The Media and Politics

This course explores the implications of political campaigns in American politics. Topics include management of campaigns, candidate recruitment, positive and negative advertising, political consultants, political parties and interest groups, effects of media coverage, campaign financing, and impact of campaigns and elections on public policy. Special consideration will be given to current campaigns. Cr 3 .

## LOS 325J State and Local Government

This course is an introduction to the structure, roles, and processes of administration in state and local government. The state of Maine is a special focus of the course.

Cr 3.

## LOS 327 Leading through Conflict

Conflict management is explored as an essential leadership tool and analyzed as a necessary component of healthy systems and innovations. We will investigate techniques that help individuals and groups mediate and negotiate differences encountered in a variety of situations.

Cr 3.

## LOS/SBS 329 Research Methods

This course is an introduction to quantitative and qualitative research methods which can be used in organizational planning and decision making and in the social and behavioral sciences. The course will cover topic areas related to the application of appropriate methods of inquiry and includes completion of an applied project. Strongly recommended for students going on to graduate school, careers in consulting, or human resource management. Prerequisite: LCC 150D.

Cr 3.

## LOS 330 Leadership in Different Cultures

Students will explore leadership practices in multiple cultures and how our increasing interactions with these diverse leadership styles have changed our conception of leadership in the U.S. This course will help students determine the skills they will need to take on a leadership role in a global society. Cr 3.

## LOS/LAC 331/CPT 225 Advanced Personal Computer Repair

This is an advanced course in personal computer
installation, maintenance, and repair. It provides students with an in-depth study of PC system components, peripherals, and hardware interfaces and will emphasize problem solving, analysis, connectivity, and cabling difficulties. Offered at CMCC. Cr 3.

## LOS/LAC 334/BCA 153 Integrated Software Packages

This is a course in the use of integrated software packages for report, document, presentation, and information development activities. A variety of instructional activities will stress file and data integration and explore intra- and inter-package communications. Integration of word processing, spreadsheet, database, and graphics software is featured using linking and other tools. Students are expected to produce documents, spreadsheets, database reports, and presentations which take full advantage of inter-operability, communication, translating, linking, and sharing functions. Prerequisite: LAC 150 or equivalent. Cr 3.

## LOS/SBS 335 Legal Issues in Health and Human Services

This course examines the legal framework underlying the delivery of health and human services with an emphasis on current socio-legal problems including the rights of clients and the responsibilities of workers.

Cr 3 .

## LOS 338 Health Care Policies

This course provides a comprehensive introduction to health care policy and the organization of the American health care system. Critical issues confronting the consumption, delivery, and financing of health care will be considered. Health care systems in other countries and around the United States will be examined.

Cr 3.

## LOS 350 Leadership

This course examines the theory, research, techniques, and challenges of leadership in organizations. Organizational culture is studied with emphasis on the leader's role in influencing and decision making. An experiential design is used along with traditional classroom techniques to help students reflect upon their personal leadership styles and examine their approaches to leading and managing others in diverse organizational settings. Cr 3.

## LOS 373 Managing Nonprofits

This course will familiarize students with major concepts in the management of a nonprofit and will help them develop the skills to utilize this material in applied situations. Students will explore the mission of the nonprofit, marketing and funding, effective strategies for developing relationships and performance, and ways to enhance leadership skills. Cr 3.

## LOS/SBS 381 Introduction to Globalization

This course examines the economic, political, social, and cultural aspects of globalization from an interdisciplinary perspective. The purpose is to get a
sense of clarity about what globalization is, how it is affecting people around the world, and why there is an increasingly robust resistance to it on the grassroots level. We will also discuss how to empower ourselves, while being socially responsible in this rapidly changing world. Course format includes discussion, case study, and student presentation on research projects. Prerequisites: SOC 100J, ANT 101J.

Cr 3.

## LOS 398 Independent Study

Prerequisites: LOS 300 or junior standing and permission of instructor.

## LOS 399 Special Topics

Topics offered will cover current special issues in organizations and/or the study of organizations through alternative methods. Prerequisites: LOS 300 or permission of the instructor.

## LOS 412 Topics in Human Resource Management.

This course will consider contemporary topics that represent emerging issues for human resource management within organizations.

Cr 3.

## LOS/SBS 430 Applied Social Policy

A review of contemporary social policy alternatives and an examination of social policy making processes at both the macro- and micro-levels. Students complete an applied social policy project which might take the form of a policy paper, a grant proposal or written legislative testimony for a community agency. Prerequisites: LCC 150 or LOS/SBS 329 and either LCC 200 or LCC 370 as well as junior standing or permission of the instructor. Cr 3.

## LOS/SBS 436 Risk, Public Policy, and Society <br> This course considers the variety of ways in which

risks, especially risks to the environment and to health, are measured, perceived, communicated, and acted upon in our society. Perspectives will be drawn from health fields, natural sciences, and political science, as well as from the social sciences. Cr 3.

## LOS 440 Organizational Change and Development

This course explores the theory, research, and processes of leading, managing, and adapting to organizational change. Case studies and experiential learning are used to examine the effectiveness of change efforts and their impact on the group and individual. Prerequisite: LOS 300 or permission of instructor. $\quad \mathrm{Cr} 3$.

## LOS 470 Leadership Abroad

The goal of this course is to familiarize students with key issues in intercultural leadership and to provide tools to be an effective leader in a globally aware environment. Through international travel, a variety of readings, and reflection exercises, students will examine a diversity of leadership situations and the cultural factors that influence the quality of a leader's performance. In order to help apply theory to experience, students will be given a number of opportunities to articulate ideas about the concepts explored through presentation, group discussion, and writing. Prerequisite: instructor permission.

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\text { Cr } 6 .
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## LOS 487 Consulting in Organizations

Students will work in a team to apply organizational concepts and theories to a real-life organizational situation. Topics include self-assessment, consulting roles, the phases of consulting, consulting strategies, and ethical considerations. Prerequisite: permission of instructor.

Cr 3.

# Division of Advising and Academic Resources 

Executive Director: Elizabeth Higgins<br>Director, Learning Foundations: Elaine Wright; Coordinator, Developmental Mathematics: J. Scott Perry; Director, Office of Support Services for Students with Disabilities: Joyce Branaman

The Division of Advising and Academic Resources facilitates student access to education, provides seamless support systems and services to enhance student learning, and provides support for the academic initiatives of the University community. The departments of the Division are responsible for a variety of services. Advising Services provides academic advising support for students without a declared major, students admitted to GO, and non-matriculated students. Advising Services also coordinates a number of University-wide activities. The Office of Support for Students with Disabilities reviews documentation and coordinates accommodations for students with documented disabilities. Learning Foundations coordinates developmental coursework in mathematics, the learning strategy courses, and the Learning Centers. Learning Foundations also coordinates the University's tutor training program.

The developmental course (MAT 009) provides students with instruction to help them achieve college level readiness in mathematics. The Learning Center offers tutoring in writing, mathematics, and English for Speakers of Other Languages. The Academic Self-Management course (FRS 180) offers learning strategies to assist students with study skills and the transition into higher education and the information course (FRS 197) offers students the opportunity to go beyond Google. The Office of Support for Students with Disabilities Office provides a variety of services for students with disabilities.

Advising Services is also responsible for veterans' certification and advising, providing transfer credit evaluations for all undergraduate international students, and New Student Advising and Registration Programs, USM's orientation program. Advising Services is located in Payson Smith Hall in Portland (780-4040) and Upton Hall in Gorham (780-5652). Advising services are also available at LewistonAuburn College (753-6500).

## FRS 180 Academic Self Management

This learning strategy course explores the six major control components that usually contribute to high academic achievement: motivation, methods of learning, use of time, monitoring of performance factors, and relationships to both physical and social environment. Presentations and readings involving learning research and theory are interconnected to student participation, assessment, and self-monitoring activities. Students will engage in the self-management and self-prescriptive process to determine what specific academic behaviors will best assist individual academic performance. Students must be registered in at least one other college course in order to provide an application-practice field. Cr 3.

## FRS 197 Information Power Unleashed

This course unleashes the power of information, channeling students into a veiled world in which they will explore how to recognize when information is needed and how to locate, evaluate, and effectively use the needed information. Topics will include basic computing skills, Web evaluation, locating and using books, articles and other media, critical thinking, plagiarism, citation style, primary and secondary sources, Boolean searching, and basic considerations in the writing process. Students will use USM library resources and those of other
U.S. libraries and will be given a glimpse into the shadowy world of librarianship. Cr 1.

## MAT 009 Developmental Mathematics

A review of fundamental topics of arithmetic needed for a study of algebra. This course will cover the following topics: addition, subtraction, multiplication, and division of fractions; use of decimals and percent; estimation; addition, subtraction, multiplication, and division of real numbers; exponents; order of arithmetic operations; distributive property; combining like terms; substitution to evaluate expressions and formulas; grouping symbols; addition and multiplication principle; formulas; sets; solving equations with fractions; translating English phrases into algebraic expressions; and solving word problems using geometric formulas. Successful completion of the course and the course exit exam at a C level (75\%) or higher is required. Credit earned in MAT 009 does not apply or accumulate toward any degree program nor contributes to the GPA at the University of Southern Maine. After successful completion of MAT 009, students must then complete MAT 101B (College Readiness Mathematics) to fully meet college readiness in mathematics or place out of the math college readiness courses via a retake of the math placement exam.

Cr 3.

# Division of University Outreach 

Associate Provost: Robert J. Hansen<br>Associate Dean for Academic Outreach: Monique M. LaRocque; Assistant Dean for Administration: Marya Baron; Director, International Programs: Domenica T. Cipollone; Director, English for Speakers of Other Languages: Bart Weyand; Executive Director, Osher Lifelong Learning Institute: Kali Lightfoot; Executive Director, Center for Continuing Education: Stacy Calderwood; Director of Conferences: Elizabeth A. Morin

The Division of University Outreach is responsible for providing lifelong learning opportunities to the people of southern Maine that support their intellectual, educational, economic, environmental, and cultural interests.

Academic outreach programs include credit courses offered in alternative times, formats, and locations. Such offerings extend USM's services throughout southern Maine and the state, providing opportunities to earn degrees for people who find regular, full-time attendance at a campus difficult, as well as opportunities for USM students to accelerate progress toward their degrees.

## Summer Session

Academic programming offered through the USM Summer Session includes traditional on-campus courses presented in accelerated one-, two-, three-, four-, and seven-week formats. Innovative institutes, conferences, and domestic and international short-term travel-based courses provide undergraduate and graduate students with vibrant learning experiences throughout the summer months. Summer Session also sponsors resident and commuter fine arts camps for aspiring musicians, vocalists, theatre dancers, and actors/actresses in grades 5-12. Residence hall accommodations and meals are available. For more information, contact the Summer Session office at (207) 780-5617 or visit the Web site, www.usm.maine.edu/summer.

## Weekend College

Weekend College offers the opportunity to expand academic studies from Friday evenings through Saturday afternoons. More than 35 classes are available each semester to help students accelerate their degree progress. For information, visit: www.usm.maine.edu/eap/profed/weekend.html or call (207) 780-5617.

## Center for Technology-Enhanced Learning (CTEL)

The Center for Technology-Enhanced Learning (CTEL) continues to expand its online course options, and currently offers more than 250 courses. CTEL supports the efforts of departments, programs, and faculty members who want to develop programs and courses for delivery in online and blended learning formats. CTEL also coordinates the offerings of undergraduate and graduate USM courses delivered statewide via interactive television (ITV) and compressed video (CV). For information, visit: www.usm.maine.edu/ctel or call (207) 780-4077.

## Off-Campus Programs

USM offers a variety of courses for college credit at University College sites: BathBrunswick and Saco. These centers offer a comprehensive array of services including registration, admission, financial aid, and academic advising. They may be contacted as follows: Bath-Brunswick, 9 Park Street, Bath, ME 04530, (207) 442-7736 or (800) 696-2329; Saco, 110 Main Street, Saco Island, Saco, ME 04072, (207) 282-4111 or (800) 696-3391. For information visit: www.usm.maine.edu/eap/profed/offcampus.html, or call (207) 780-5617.

## Winter Session

In the weeks between the fall and spring semesters, Winter Session offers online courses and some short-term travel-based courses. Winter Session courses are attractive to students who want to accelerate their degree progress. For more information,
contact Winter Session at (207) 780-5617, or visit the Web site, www.usm.maine.edu/winter.

## English for Speakers of Other Languages (ESOL)

The English for Speakers of Other Languages program is designed to meet the academic language needs of students whose first language is not English and who are currently enrolled or planning to enroll in the University. Based on a placement test, students are assigned to one of three levels of ESL reading, writing, and vocabulary classes, and/or to one of two levels of ESL grammar classes. At a more advanced level, the ESOL program also offers a section of College Writing only open to students whose first language is not English and who have met language proficiency or taken prerequisite courses; this course (ESL 100C) satisfies USM's Core Competence goals for Basic Composition. The noncredit Intensive English Language Program (IELP) allows students age 18 or older to improve their English for university entry or work. The IELP offers 22 hours of instruction per week (reading, writing, vocabulary, and grammar as well as courses focusing on oral communication and fluency) for 15 weeks in the fall and spring semesters, and for 4 weeks in the summer. Students whose TOEFL scores are below the required 79iBT or have taken the SATs and are otherwise admissible to USM may apply to USM's English Language Bridge program (ELB). International students who have not taken the TOEFL but who are otherwise admissible may be admitted to the University with conditions. For more information, call (207) 780-4419, or visit www.usm.maine.edu/esol.

In addition to the above programs, University Outreach offers the following course. Spreadsheet proficiency is a graduation requirement for some academic programs. Proficiency can be demonstrated by earning a C or higher grade in this course, or by successfully passing a spreadsheet proficiency exam.

## ABU 190 Spreadsheets and Problem Solving

An examination of problem-solving techniques using modern computer applications software. Primary focus is on the use of electronic spreadsheets as a problem-solving tool, including proper spreadsheet model design and the use of appropriate
graphical representation of model results. Other computer problem-solving software is examined. Interpretation and effective communication of results, both written and oral, are practiced. Prerequisite: MAT 101B (C- or higher) or equivalent proficiency and computer literacy. Cr 3 .

## International Outreach

The Office of International Programs offers international and domestic exchange services and short-term travel-based courses to provide USM students and members of the southern Maine community the opportunity to broaden their world view and gain greater understanding of other cultures. For information, contact the Office of International Programs at (207) 780-4959. Additional information about international study opportunities can also be found at www.usm.maine.edu/international.

## International Student and Scholar Support

The Office of International Programs works closely with international students throughout their academic program at USM, including pre-arrival. The staff provides information and support in international student orientation, immigration policies and procedures, and on-going adjustment to the campus and community. Through the Multicultural Student Center, students can stay in contact with other international students on campus and meet students interested in other cultures. Please call (207) 780-4959 to reach the staff of the Office of International Programs. More information can also be found on the Web at www.usm.maine.edu/ international, www.usm.maine.edu/eeo/culture.

## International Study Opportunities

The University offers a variety of opportunities for students to spend a semester or full year at another university while enrolled in a degree program at USM. International study maintains links to and information on programs offered throughout the world. Each year students participate in exchange programs in many parts of the world, including England, Ireland, France, Russia, the Netherlands, Australia, and Japan. Scholarships for study and travel abroad are available. Planning should begin at least one year before the intended departure.

Short-Term Travel-Based Programs
USM's short-term travel program offers students an excellent opportunity to earn up to six credit hours in a one- to five-week international or domestic travel-based course. Recent courses have included travel to Belgium, Belize, Canada, China, the Dominican Republic, Greece, Ireland, Spain, Sweden, Thailand, and the United States. Travel courses are led by USM faculty members, and combine academic and experiential learning into an unforgettable educational experience in another culture. Whether the course is held in the United States or abroad, students acquire a broader perspective of the world around them.

## National Student Exchange

National Student Exchange offers students the opportunity to live and learn in another part of the United States. Students are able to spend up to one year at one of 190 schools while paying in-state tuition rates. Schools involved in the program are located in 48 states, three U.S. territories, and six Canadian provinces. Many USM students take part in the exchange each year, while students from other universities exchange to USM.

## Community Outreach

USM's community outreach programs and services extend important noncredit learning opportunities that enhance the professional expertise and quality of life of the people in the region and state.

## Osher Lifelong Learning Institute (OLLI)

OLLI at USM is committed to providing, for its members, a variety of intellectually challenging courses and activities in a creative and inclusive learning community. OLLI offers an extensive array of courses in the liberal arts and sciences. The courses are peer taught, there are no entrance requirements, grades, or tests, and no college background is needed. Courses run for eight weeks in the fall and spring, and six weeks in winter and summer. OLLI also features social activities, lectures, and educational travel. Membership and course fees are affordable and scholarships are available.

OLLI at USM houses the National Resource Center for Osher Lifelong Learning Institutes, a communication hub disseminating best practices, planning conferences, and providing general support for a network of more than 120 OLLIs in 49 states. The OLLIs are designated and funded by The Bernard Osher Foundation of San Francisco. The Osher Lifelong Learning Institute also sponsors research on topics in education for older adults, houses the office of the Maine Senior College Network, and sponsors SAGE (Senior Adult Growth Exchange). As the center for the Maine Senior College Network, OLLI provides communication, resources, and annual conferences for the 18 Senior Colleges located throughout Maine. OLLI further promotes the University of Maine System's policy for extending tuition waivers for academic credit classes to people aged 65 and over. For information, call 780-4406, or visit the Web sites, www.usm.maine.edu/olli, www.osher.net, or www.maineseniorcollege.org.

## Center for Continuing Education

The Center for Continuing Education (CCE) provides lifelong learning opportunities for professionals and the general public. CCE offers a wide range of certificates for professionals in business, nursing, and the health and human services professions. In addition to certificates, CCE offers short-term, targeted, and skill-based courses. CCE also offers customized training solutions to meet the specific business needs of local companies. This training can be delivered at CCE's location-the Joel and Linda Abromson Community Education Center in Portland-or on site. For complete information visit www.usm.maine.edu/cce or call (207) 780-5900 or (800) 787-0468.

## Department of Conferences

The Department of Conferences provides planning and coordination to those who wish to use the University's conference facilities and services. The Department specializes in conference registration services; its conference planning and management services are extended to professional and trade associations, government agencies, private business, and community groups and organizations. Programs can be
conducted on the USM campuses or off-campus wherever an appropriate meeting site can be arranged. Facilities available at USM include overnight rooms, classrooms, computer labs, state-of-the-art lecture halls, and function rooms. The Joel and Linda Abromson Community Education Center, with the 500-seat Hannaford Lecture Hall, is particularly suited for a variety of community events. The Center is located at 88 Bedford Street in Portland, adjacent to the USM Parking Garage. For information call (207) 780-5960 or visit the Web site, www.usm.maine.edu/conferences.

## CEUs

The Center for Continuing Education coordinates and manages the CEU system for the University of Southern Maine. The Continuing Education Unit is a nationally accepted measurement of participation in noncredit continuing education. Each year, thousands of people use CEUs for retaining professional certifications, licenses, and association memberships. The Center maintains cumulative transcripts for everyone who takes CEU-bearing programs through one or more of the noncredit program departments at USM. For information about CEUs at USM call (207) 7805900.

# Edmund S. Muskie School of Public Service 

Dean: William Foster<br>Associate Dean: Andrew Coburn<br>Professors: Barringer, Clary, Coburn, Colgan, Hartley, Kartez, Lapping, Payne, Thompson; Associate Professors: Bolda, Goettel, Kilbreth, Lambert, LaPlante, Lynn, Richert, Wessler; Assistant Professors: Howard, Lahti, Merrill, Morris, Nalli

The Edmund S. Muskie School of Public Service is a non-partisan education, research, and public service organization dedicated to educating leaders, informing policy and practice, and strengthening civic life.

The School has grown in both size and reputation since it was founded in 1990faculty and staff now number over 300, and research awards in 2005 totaled more than $\$ 32$ million. The Muskie School is nationally recognized for its three applied research institutes, and is sought after as a source of knowledge on issues of local, regional, state, and national importance.

What makes the School successful is its practical, innovative approach to issues; its active efforts to span traditional boundaries among university, government, and nonprofit organizations; and its success in bridging University departments and disciplines in the search for creative solutions.

The Muskie School offers master's degrees in public policy and management, health policy and management, and community planning and development (with joint degrees with the School of Law). These programs educate students for leadership roles in government and the private and nonprofit sectors through interdisciplinary, problem-focused education. A combination of classroom and applied field experiences imparts a broad understanding of the challenges of democratic governance, and develops competencies in policy planning and analysis, and organizational and management skills.

# University of Maine School of Law 

## Dean: Peter Pitegoff

Professors: Burke, Cluchey, Friedman, Knott, Lupica, Maine, Rogoff, Wanderer, Ward, Wriggins, Zarr, Zillman; Associate and Assistant Professors: Arey, Galbraith, Howard, Norchi, Northrop, Owen, Smith, Schindler; Research Professor: Heimes; Emeritus Professors: Delogu, Khoury, Reiser

The University of Maine School of Law offers a high quality legal education to a selective student body. With a fine faculty, excellent library resources, and a nationally oriented curriculum strong in basic legal courses, the Law School takes pride in educating men and women who become capable and motivated attorneys.

The academic program is rigorous and demanding. Thanks to the School's size, however, its students have the benefit of small classes, frequent and informal contact with the faculty, and a supportive atmosphere. These factors do much to ease the strains attendant upon entry to an exacting profession.

The School averages less than 300 students, making it one of the smallest in the country. The student body is remarkably varied in age, professional and academic experience, and background.

The School's 21 full-time faculty members, along with part-time instructors drawn from practicing attorneys and the judiciary, represent a diversity of backgrounds, expertise, and interests.

The School is fully accredited by the American Bar Association and is a charter member of the Association of American Law Schools.

Established in Portland in 1961, the Law School is an administrative unit of the University of Southern Maine, and has responsibilities to the statewide University system. The School's location is accessible for handicapped students and provides facilities for classroom and seminar discussion, library research, moot court participation, clinical practice, legal publications, and student activities.

## Office of Sponsored Programs

## Pre-award Services

Post-award Services

The Office of Sponsored Programs (OSP) is responsible for encouraging externally funded initiatives in support of program-related activities of academic, research and development, and administrative units; and serves as the major resource to faculty and staff who wish to pursue such projects. The Office maintains information on and promotes awareness of funding opportunities, assists in refining project ideas and matching them with a potential sponsor's priorities and requirements, assists in the preparation of grant applications, and serves as the final approving authority for such applications.

OSP subscribes to a number of governmental and foundation references and a variety of supplementary materials useful to grant seekers. In addition to having access to many on-line funding sources, OSP maintains a subscription to an online funding opportunities database via the Community of Science. This is accessible by all faculty and staff and can be invaluable to individuals seeking to do their own searches.

OSP publishes a monthly newsletter during the academic year that provides information on funding opportunities for scholarly, creative, or research oriented projects; highlights currently funded projects; and provides recognition for faculty and staff awards.

The OSP provides financial management assistance and administrative support to principal investigators and project directors after an award is received. Services include: review and approval of all award documents, preparation and submission of financial reports, requests for reimbursement, budget revisions, amendments, etc. These services are a collaborative effort on the part of OSP staff and project staff. Services continue through the termination date, ending with the submission of the final program and final financial reports.

Increasingly, governmental agencies are turning to OSP to provide management and approval for post-award modifications. In many cases, such requests can be approved and processed by OSP with proper notification to the sponsor.

Additional information is available online: www.usm.maine.edu/osp.

The University of Southern Maine is accredited by the New England Association of Schools and Colleges which accredits schools and colleges in six New England states. Membership in the Association indicates that the institution has been carefully evaluated and found to meet standards agreed upon by qualified educators.

The University of Southern Maine shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, transgender status or gender expression, national origin or citizenship status, age, disability, or veterans status in employment, education, and all other areas of the University. The University provides reasonable accommodations to qualified individuals with disabilities upon request. Questions and complaints about discrimination in any area of the University should be directed to the campus compliance officer, 7 College Avenue, (207) 780-5094/TTY (207) 780-5646. Inquiries or complaints about discrimination in employment or education may also be referred to the Maine Human Rights Commission. Inquiries or complaints about discrimination in employment may be referred to the U.S. Equal Employment Opportunity Commission. Inquiries about the University's compliance with Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, and national origin; Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability; Title IX of the Education Amendments of 1972, which prohibits discrimination on the basis of sex; and the Age Discrimination Act of 1975 , which prohibits discrimination on the basis of age, may also be referred to the U.S. Department of Education, Office of Civil Rights (OCR), Boston, MA 02109-04557, telephone (617) 223-9662 (voice) or (617) 223-9695 TTY/TDD. Generally, an individual may also file a complaint with OCR within 180 days of alleged discrimination.

The University of Southern Maine reserves the right to revise, amend or change items set forth in this cata$\log$ from time to time. Accordingly, readers of this catalog should inquire as to whether any such revisions, amendments or changes have been made since the date of publication. The University reserves the right to cancel course offerings, to set minimum and maximum size of classes, to change designated instructors in courses, and to make decisions affecting the academic standing of anyone participating in a course or program offered by the University of Southern Maine.

The University of Southern Maine supports the efforts of secondary school officials and governing bodies to have their schools achieve regional accredited status to provide reliable assurance of the quality of educational preparation of its applicants for admission.

## Campus Safety and Security

The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act of 1998 requires universities to disclose three years of statistics regarding campus crime, including off campus buildings the University owns, and on public property adjacent to campus in Portland, Gorham, and Lewiston. The USM report (Safety and Security Information Report) also includes policies for campus security, such as those concerning alcohol and drug use, crime prevention, the reporting of crimes and sexual assaults, and other related matters. A copy may be obtained by accessing the following Web address: www.usm.maine.edu/police/safetyreport.htm or by calling the Office of Community Standards at (207) 780-5242 to request a paper copy.


[^0]:    Ecology Degree Plan
    Year 1
    Fall semester
    BIO $105 \mathrm{~K} \quad$ Biological Principles I: Cellular Biology 3
    BIO 106K Laboratory Biology 1.5

