

1992

## University of Southern Maine Undergraduate Catalog 1992-1993

University of Southern Maine

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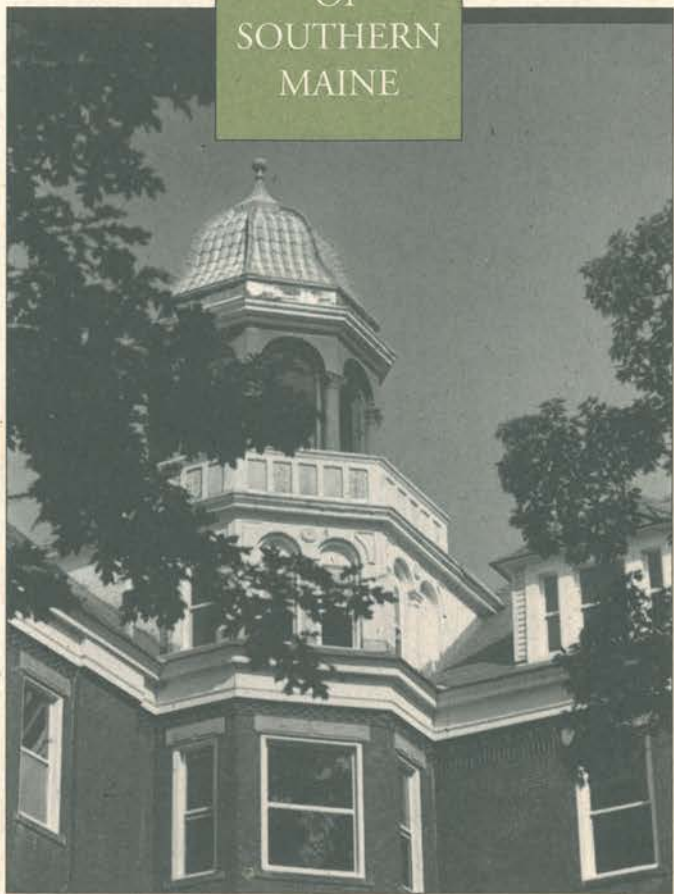
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*Course Catalogs*. 43.

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# Reference Desk

UNIVERSITY  
OF  
SOUTHERN  
MAINE



UNDERGRADUATE CATALOG  
1992-1993





# UNIVERSITY OF SOUTHERN MAINE

## **Undergraduate Catalog 1992-1993**

University of Southern Maine

Gorham mailing address: University of Southern Maine, College Avenue, Gorham, Maine 04038

Portland mailing address: University of Southern Maine, 96 Falmouth Street, Portland, Maine 04103

The University's main telephone number: (207) 780-4141

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# UNIVERSITY OF MAINE SYSTEM

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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, national origin or citizenship status, age, disability, or veterans status and shall comply with Section 504, Title IX, and the ADA in employment, education, and all other areas of the University. Inquiries about discrimination in any area of the University should be directed to EEO Director, Sue Ellen Bordwell, 7 College Avenue, Gorham, Maine 04038, (207) 780-5171, TDD (207) 780-4395 or to the Office of Civil Rights, U.S. Department of Education, Region I, John W. McCormack Post Office and Courthouse Building, Boston, Massachusetts 02109, (617) 223-9692.

The University of Southern Maine reserves the right to revise, amend or change items set forth in this catalog 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.

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# ACADEMIC CALENDAR 1992-1993

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## FALL SEMESTER

Classes Begin .....	Monday, August 31
Labor Day .....	Monday, September 7 (No classes)
October Vacation Begins .....	After all classes, Saturday, October 10
Classes Resume .....	8:00 a.m., Wednesday, October 14
Veterans' Day .....	Wednesday, November 11 (No classes)
Thanksgiving Vacation Begins .....	4:00 p.m., Wednesday, November 25
Classes Resume .....	8:00 a.m., Monday, November 30
Last Day of Classes .....	Monday, December 14
Reading Day .....	Tuesday, December 15 (No classes)
Final Exams Begin .....	Wednesday, December 16
Final Exams End .....	Tuesday, December 22

## SPRING SEMESTER

Classes Begin .....	8:00 a.m., Tuesday, January 19
Winter Vacation Begins.....	After all classes on Saturday, February 13
Classes Resume .....	8:00 a.m., Monday, February 22
Spring Vacation Begins .....	After all classes, Saturday, March 27
Classes Resume .....	8:00 a.m., Monday, April 5
Last Day of Classes .....	Saturday, May 8
Final Exams Begin .....	Monday, May 10
Final Exams End .....	Friday, May 14
Commencement .....	Saturday, May 15



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# THE UNIVERSITY

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In 1878, the Western Maine Normal School was founded at Gorham. Its mission broadened and its student body grew, and in 1945 it became Gorham State Teachers College. Similarly, Portland Junior College, developed in 1933 to bring higher education within commuting distance of a growing population, became the University of Maine at Portland in 1957. The two institutions were joined in 1970 as the University of Maine at Portland-Gorham, and in 1978 became known as the University of Southern Maine.

Not surprisingly, each college and university in the country likes to think of itself as unique, as offering experiences unavailable at other institutions of higher learning. To be sure, the University of Southern Maine has many characteristics typical of medium-sized, public universities elsewhere in the United States. It comprises seven academic units (Applied Science, Arts and Sciences, Business, Education, Law, Lewiston-Auburn College, and Nursing); it enrolls over 10,000 students, and is the second largest of the seven campuses making up the University of Maine System; it offers three associate and thirty-seven baccalaureate degree programs, as well as graduate and professional degrees in law, nursing, business, applied immunology, computer science, education, engineering, New England studies, statistics, public policy and management, and school psychology.

But the University has many unique features, too. It is both large and small. With 1,400 students in residence on the Gorham campus and in Portland Hall located in downtown Portland, the University has many of the characteristics of a rural, New England college. At the same time, located in Portland, the state's largest city and the center of financial, business, and cultural activities, the University makes available resources, opportunities, and experiences usually found only in much larger institutions. In addition to its two campuses, two off-campus learning centers and the Lewiston-Auburn College serve students throughout southern Maine. All of these sites have been linked via computer and an interactive, color, instructional television system.

The student body of the University is the most diverse in the state of Maine. Over one-half are full-time students; more than 57 percent are women, and the average age of an undergraduate student is 26. This diversity of age provides a lively and challenging environment for learning: a context in which scholarship and the experience gained from living complement one another.

The University is also the most cosmopolitan of Maine institutions of higher education. There is easy access to the cultural and social resources of Boston and New York, as well as those of Portland. The City of Portland and the University cooperate to provide internships for students in political science, law, sociology, nursing, and related areas. There is heavy use by the University of community resources including art institutions, museums, television, and skilled professionals who serve as part-time faculty. The University engages in a broad range of ventures with municipal, county, state, and federal agencies, as well as with private foundations and industry. These all serve to provide the student with formal and informal learning opportunities in the areas of the arts, humanities, politics, business, mass communication, and high technology. The University maintains a strong faculty and student exchange program with colleges and universities in Britain, Sweden, Ireland, the Netherlands, the Commonwealth of Independent States, and Brazil and is developing new programs with the People's Republic of China and with Japan.

Most important, however, the University continues to grow and develop. At a time when many colleges and universities in the country are struggling with declining enrollments, drastically curtailed resources, and a need to redefine their mission, this University, by virtue of its location, range of student body, quality of faculty, and level of support, is responding creatively to its particular circumstances and the challenges of its students. A Core curriculum has been established to define the types of skills and the kinds of learning experiences our graduates should have in today's world. A University Honors Program provides an enriched undergraduate education to a selected group of students who are outstanding in their ability, curiosity, creativity, and motivation. The University continually attempts to strengthen its commitment to serve the needs of off-campus students, in-service teachers, and professionals on-site in business and industry. As an urban comprehensive institution, the University is thus a major educational force in the overall growth and improvement of southern Maine: an area often described as the northern part of that business, industrial, and cultural corridor stretching from Washington, D.C., through New York and Boston.

But ultimately, a university must be judged on the basis of its impact upon its students and in terms of the value it imparts to those who join its community. Students at the University of Southern Maine find themselves challenged by a talented and dedicated faculty, stimulated by a diverse and involved student body, and enriched by the type of environment that Portland, one of the country's "most livable cities," affords.

The University of Southern Maine is accredited by the New England Association of Schools and Colleges, indicating the University meets or exceeds Association standards; the School of Nursing is accredited by the National League for Nursing; the College of Education by the National Council for Accreditation of Teacher Education; and several departments within the College of Arts and Sciences by specialized accrediting bodies. The University of Maine School of Law is approved by the American Bar Association and the Association of American Law Schools.

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# PROGRAMS OF STUDY

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The University of Southern Maine offers three associate and thirty-seven baccalaureate degree programs as well as graduate and professional degrees in law, nursing, applied immunology, business, computer science, statistics, New England studies, school psychology, education, and public policy and management. For further information regarding graduate programs, please refer to the Graduate Catalog.

## ***Baccalaureate Degree Programs***

### *College of Arts and Sciences*

Applied Chemistry (B.S. degree)	English	Philosophy
Art (B.A. degree or B.F.A. degree)	French	Physics
Biology (including pre-med, pre-dental and pre-vet)	Geology	Political Science
Chemistry	Geography-Anthropology	Psychology
Communication	History	Self-Designed Major**
Criminology	Mathematics	Social Work
	Music (B.A. degree or B.M. degrees in Performance or Music Education)	Sociology
		Theatre

\*\*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:

Biotechnology	German Studies	Russian Studies
Classical Studies	Hispanic Studies	Social Science
Foreign Languages	International Studies	Women's Studies
French Studies	Linguistics	

### *Lewiston-Auburn College*

Management and Organizational Studies (B.S.)	Arts and Humanities (B.A.)
Social and Behavioral Sciences (B.A.)	Natural and Applied Science (B.A.)

### *School of Applied Science*

Computer Science (B.S.)	Vocational/Occupational Education (B.S.)
Industrial Technology (B.S.)	Vocational Technology (B.S.)
Technology Education (B.S.)	

Electrical Engineering (B.S.) This University also offers the first year of the four-year program common to other engineering majors and the first and second years in engineering physics. 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.

### *School of Nursing*

Nursing (B.S.)	Therapeutic Recreation (B.S.)
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### *School of Business, Economics and Management*

Business Administration (B.S.)	(with majors in business administration, accounting, and economics)
Economics (B.A.)	

## ***Associate Degree Programs***

### *College of Arts and Sciences*

Liberal Arts (A.A.)
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### *School of Nursing*

Therapeutic Recreation (A.S.)
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### *School of Business, Economics and Management*

Business Administration (A.S.)	(with concentrations in accounting; computer; management; marketing; hotel, motel, and restaurant management; and real estate)
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For further information regarding baccalaureate and associate degree programs, please refer to the appropriate school or college section of this catalog.

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# UNDERGRADUATE ADMISSIONS

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The University of Southern Maine is an academic community that welcomes applications for admission from qualified women and men regardless of race, color, religion, sexual orientation, national origin or citizenship status, age, handicap, or veteran status. The University seeks candidates whose academic achievement and motivation indicate success in an undergraduate program. The Admissions Office 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 campus tours. Prospective students are encouraged to telephone or visit the Admissions Office (207-780-4970) located in Payson Smith Hall on the Portland campus.

## ***Admissions 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. Although secondary school preparation may vary, the following subjects are required for regular admission to the University. In addition to these, further requirements are imposed by individual schools and colleges. (A unit is equivalent to one year of study.)

### *General subject requirements (University-wide)*

English	4 units
Mathematics	3 units (Algebra I, II, and Geometry)
Science	2 units (with lab)
History/Social Science	2 units

### *Applicants to the College of Arts and Sciences must also have:*

Foreign Language                      2 units (one language)  
Science majors must have three lab units of science. Foreign language majors must have three units of a foreign language. Mathematics majors are required to have four units of mathematics. An official Declaration of Major form must be completed upon entering the College of Arts and Sciences.

### *Applicants to the School of Nursing*

Nursing candidates must have biology and chemistry. Each student 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 School of Nursing section of this catalog.

### *Applicants to the School of Business, Economics and Management*

A fourth year of college preparatory mathematics (trigonometry, calculus, etc.) is strongly recommended. Associate degree candidates should refer to the appropriate section of the catalog for further information on admission requirements.

### *Applicants to the School of Applied Science*

Preparation for engineering should include chemistry, physics, and mathematics including algebra and trigonometry. Departmental interviews in person or by telephone are required for admission into the industrial technology, technology education, and vocational/occupational education majors.

### *Applicants to Lewiston-Auburn College*

Lewiston-Auburn College applicants must meet all University general subject requirements. Applicants should make an appointment with Kathy Demers, enrollment coordinator, Lewiston-Auburn College, 783-4860, to discuss their career goals in relation to the academic programs offered by the college.

*Special Note:* For specific admissions requirements of the degree program in music education, please refer to the Music Department section of the catalog.

## ***Admissions Procedures***

Admission to degree programs at the University is on a selective basis. Each applicant for admission is required to submit a completed University of Maine Application Form and a nonrefundable \$20 application fee. The Application Form requires the applicant to detail his/her academic, personal, and recreational background. In addition, the candidate is asked to describe in narrative form his/her interest in the University and the specific degree program for which application is being made.

The University will consider applications for the fall semester at any time beginning in the September of the year prior to the fall semester in which the applicant intends to commence academic study. 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 also be made to enter the University in the spring semester. These, too, should be submitted early so as to receive full consideration.

Offers of admission may be revoked because of unsatisfactory performance in the final semester of high school or college work.

### ***Admissions Deadline***

Completed applications, including all supporting documentation, must be received in the Admissions Office by November 15 in order to be considered for spring enrollment and July 15 for fall enrollment. Completed international applications must be received by October 15 and April 15 in order to be evaluated for the spring and fall semesters. Candidates for early admission need to submit completed applications by April 15.

Admission to the University is offered for a specific semester. Anyone choosing not to attend for the semester for which an offer of admission was extended must reapply if they wish to be enrolled in a degree program.

Applications which remain incomplete beyond the specified deadline cannot be approved. Applicants who are in this situation may request reactivation of their application for the following semester.

### ***Admissions Decisions***

The University recognizes that its prospective students may come with differing academic backgrounds and some with significant time having elapsed since completion of secondary school. The following categories of admission exist to accommodate such students.

***Regular Admission*** Applicants whose academic backgrounds demonstrate the ability to pursue regular, entry-level coursework may be granted regular acceptance to the University. This admissions 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.

***Admission with Conditions*** Applicants whose academic backgrounds are not complete in some way (e.g., missing academic units), but who show significant promise, may be granted acceptance with conditions. Such students are fully admitted to the University, and pursue their first year of study under the direction of the Advising Center. Normally, students who are admitted with conditions take a reduced course load for the first few semesters. These students should expect to take longer to complete a degree program at the University than students granted regular admission. Students admitted to associate or baccalaureate degree programs with conditions have up to five and six semesters, respectively, to remove their conditions.

To achieve transition to regular status, the student must complete the minimum proficiency requirements of the University as well as a minimum of 15 credit hours of graded, non-remedial coursework with a grade point average placing the student in good academic standing. Transition to regular status prior to completion of 15 credit hours may be approved if the student earns an exceptional grade point average. The student's assigned academic counselor will assist in completing the transition.

All applications are considered for regular admission to the University. As part of the review process, the Admissions Office will determine which applicants are to be offered admission with conditions.

***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, 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 simply files a re-entry form with the Transfer Admissions Office. If, however, a student wishes to resume studies as a degree candidate after the ten-year period has elapsed, she or he needs to apply for readmission. Readmission applicants should contact the Transfer Admissions Office for the proper forms.

***Early Admission*** Students who have completed their junior year of high school may apply for consideration for admission as fully matriculated freshmen within the College of Arts and Sciences. The Early Admission Program seeks to accommodate those students who display both the intellectual ability and the social maturity to succeed in a university course of study.

Students who wish to receive their secondary school diploma after the completion of one year in the Early Admission Program must obtain the prior approval of their secondary school guidance counselor or principal. Students expecting to receive their secondary school diploma must arrange with the University Registrar to have an official transcript of grades forwarded to the secondary school at the completion of the academic year.

To be eligible for admission, the applicant should have at least a B average and/or rank in the top 15 percent of his or her secondary school class at the end of the junior year. Coursework normally expected to be completed by the end of the junior year includes: three years of English; three years of mathematics beginning

at the introductory algebra level; two years of social science/history; two years of biology, chemistry, or physics; and two years of a foreign language. In addition, the applicant should register for and take the Scholastic Aptitude Test (SAT) at the earliest possible date and arrange to have the scores forwarded to the Director of Admissions at the University. The American College Test (ACT) may be submitted in lieu of the SAT for admissions purposes.

Interested applicants should confer with their secondary school guidance counselor or principal regarding eligibility to participate in the Early Admission Program. The student and the principal/counselor should complete the University application, and along with an official transcript, submit it to the Admissions Office, University of Southern Maine, Portland, Maine 04103.

Students admitted under this program are accorded all the rights and privileges of entering freshmen. Academic advising may be arranged upon request through the College of Arts and Sciences Dean's Office prior to and during the first year of the program.

It is expected that Early Admission Program applicants will apply for the fall semester. Application forms must be submitted as early as possible. For fall semester, all Early Admission applications need to be completed by April 15.

**Admission of International Students** Due to limitations on available financial aid, applications are encouraged only from international students who are able to fund fully their educational expenses from their own resources. To certify this, a Certification 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. Applicants whose native language is not English are required to submit scores of the Test of English as a Foreign Language (TOEFL). In addition, all international students must submit test results of the Scholastic Aptitude Test (SAT) or the American College Testing Assessment (ACT). For September admission, all international student admission credentials must be filed with the Admissions Office no later than April 15. The deadline for completing applications for spring semester admission is October 15.

**Enrollment as an Undeclared Major Student** Applicants who are undecided regarding their major field of study may request admission as an "Undeclared Major." Undeclared students are assigned an academic counselor in the Advising Center to assist with appropriate course selection and academic planning while selecting 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.

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

Special students hold non-matriculant status, but are required to meet the same academic progress standards as matriculants. In order to apply credits earned at the University of Southern Maine to a degree, the student must be admitted into a degree program. A maximum of 30 credits earned as a non-matriculated University of Southern Maine student can be applied to a University degree.

### **Admissions Applications**

Because admission to the University is competitive, the academic profile required for acceptance may vary from one semester to the next.

In addition to the requirements noted in the following sections, the Admissions Office may require applicants to supply additional documentation if it is determined that this information will contribute to assessing an applicant's candidacy. Students who identify a learning disability on their application may be asked to provide additional information. This information will be used to ensure proper evaluation of the application and to determine if the student meets the essential requirements.

Students who have not graduated from an accredited secondary school may be required to submit SAT or ACT scores and/or Achievement Test results. This information may be requested from applicants regardless of the amount of time that has elapsed since their separation from an educational program.

**Admission from Secondary School** Applicants applying to the University during their senior year in secondary school, or who have been graduated for less than three years and have had no collegiate attendance, must arrange for an official copy of their secondary school transcript to be sent to the Office of Admissions. Final official high school transcripts are required after completion of the applicant's senior year. Scores from the Scholastic Aptitude Test (SAT) of the College Board must also be submitted by all students, including those with GEDs, who intend to enroll within three years of high school graduation. Achievement tests of the College Board are not required. The American College Test (ACT) may be substituted for the SAT for admission purposes.

**Admission of Adult Candidates** Adult candidates must arrange for their secondary school transcript to be sent to the Office of Admissions. Although Scholastic Aptitude Test (SAT) scores are not required for admission of adult candidates, they may be submitted for placement purposes as such scores may be used to declare minimum academic proficiencies. An interview with an admissions counselor is highly recommended.

## **Admission by Transfer**

**From Outside the University of Maine System** Applicants who have attempted 12 semester hours of credit or more beyond the secondary school level are classified as transfer students and must submit official copies of collegiate and secondary school records. SAT test results are required for students who have been graduated for less than three years. Transfer candidates who have earned 60 or more semester hours of collegiate credit must submit their collegiate transcripts for evaluation, but may forego submitting secondary school transcripts and SAT scores. *Quality points do not transfer.*

Students applying for transfer from regionally accredited institutions of higher education must have a grade point average which places them in good academic standing at USM. Transfer credit may be given for coursework completed at a regionally accredited institution of higher education only if a grade of C- or better has been achieved in those courses.

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** Applicants who have completed coursework at other campuses of the University of Maine System should request an Application Form from the Admissions Office of any University of Maine System campus. Students should request that their transcripts be sent to the USM Admissions Office. This will be done at no cost to the student. Official high school transcripts and SAT test results are required in accordance with the specifications noted in the previous section.

Students must have a grade point average which places them in good academic standing at USM to be eligible for consideration as a transfer candidate. Students from within the University of Maine System are given preference over all other transfer applicants, but are subject to the same requirements and policies described in this catalog. Coursework completed with a passing grade within the University of Maine System will be granted transfer credit in accordance with Board of Trustee policy. *Quality points do not transfer.*

**Note:** Trustee policy is to provide the maximum opportunity for transfer within the System. When a student is accepted for transfer within the University of Maine System, all undergraduate degree credits obtained at any unit of the University will be transferable to any other unit 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 into which transfer is effected, and appropriate application of that credit is the responsibility of the particular academic unit.

## **Transfer Credit Evaluation**

**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; grades achieved in previous coursework; comparability of courses taken with courses at the University. Credit is not transferred for courses in which the lowest passing grade was earned (exception: courses in which a grade of D was earned are transferable if earned at another campus of the University of Maine System). 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.

## **Placement Exams**

**Placement Examination Program** All newly admitted baccalaureate and associate degree students with a SAT Mathematics score below 450 or a Test of Standard Written English (TSWE) score below 43 must take the Placement Examinations. Transfer and readmitted students with more than 30 earned credits are not required to take the English placement examination. The mathematics placement examination is required of these students unless they have successfully completed at least one semester of collegiate level work in mathematics. Non-matriculated (special) students are encouraged to take the Placement Examinations and should contact the Advising and Career Services Center for details. Copies of the publication, *Placement Examination Program*, are available at the Testing and Assessment Center, Portland campus, Advising and Career Services Center, and all off-campus centers.

## ***Prior Learning Evaluation***

The University recognizes several procedures for the assessment of learning acquired outside a sponsored collegiate setting. This may include standardized examinations (e.g., CLEP, DANTES), or credit for learning gained through paid or unpaid employment, self-directed study, or through avocational talents and skills. For further details regarding the following options, students should contact the Office for Prior Learning Assessment, Payson Smith Hall, Portland campus.

***Advanced Placement*** The University participates in the Advanced Placement Program of the College Board. Applicants interested in advanced placement with credit should make arrangements to take the Advanced Placement Tests given by the C.B. in May of each year. The tests may be taken in the junior and senior years of secondary school. Students who score a 3 or better on this test may in certain circumstances be granted credit for an introductory course in an appropriate subject area.

***College Level Examination Program*** In certain cases, credit may be given to a student who receives a satisfactory score on a CLEP examination, either the General Examinations or the Subject Examinations. These are as follows:

***General Examination*** The University will grant credit in the following areas for a score of 500 (400 on English Composition/1986 scale) or higher on these CLEP general examinations: English (3 credits, will satisfy ENG 100C); Humanities (6 elective credits); Social Science/History (6 elective credits); Mathematics (6 credits, will satisfy Core curriculum Area D) and Natural Science (6 elective credits).

The five general examinations are designed primarily for students with no previous credits in these areas rather than for upperclass students with advanced standing credit at the introductory level.

***Subject Examinations*** Any subject area CLEP examination which is equivalent to a USM course approved to satisfy a requirement of the Core curriculum may be applied to satisfy the Core curriculum requirement in that subject area.

The following departments, schools, and colleges have established policies relative to the acceptance of CLEP subject credit: College of Arts and Sciences (Biological Sciences, Chemistry, History, Mathematics, Political Science, Psychology, and Sociology); School of Business, Economics and Management; and the College of Education, (Educational Psychology, and Human Growth and Development). Interested candidates should contact the Office for Prior Learning Assessment for further information and testing schedules.

***DANTES Exams*** Standardized exams are available for department elective or general elective credits through the DANTES program.

***Challenge Examinations*** Students in the School of Nursing's RN Studies Program may challenge selected upper-division courses.

Students may challenge courses in other schools/colleges, with some restrictions.

***Portfolio Assessment*** The University has established a program for assessing learning based on an individual student's portfolio. This program involves a detailed and comprehensive documentation of prior learning, an interview with a faculty assessor, and specific performance or demonstration as appropriate. Details may be obtained from the Office for Prior Learning Assessment.

***Armed Services Experience*** The University recognizes credit based on the American Council on Education's *Guide to the Evaluation of Educational Experiences in the Armed Services*. Interested students must provide a DD 214 form, a DD 295, and/or other appropriate credentials for evaluation.

***Employer Training Programs*** Students who have participated in training programs and courses offered by employers may qualify for credit evaluations through the *Program on Non-Collegiate Sponsored Instruction* (PONS). Details may be obtained from the Office for Prior Learning Assessment.

## ***New England Regional Program***

In cooperation with the New England Board of Higher Education the University offers undergraduate 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 1992-93. The 1993-94 listing will be available from the New England Board of Higher Education during the fall of 1992. Further information is available through your guidance counselor or the Board at 45 Temple Place, Boston, Massachusetts 02111.

<i>Associate Degree Programs</i>	CT	MA	NH	RI	VT
Therapeutic Recreation	X	O	O	O	O
<i>Bachelor Degree Programs</i>					
Criminal Justice/Criminology	X	X	O	O	X
Industrial Technology	X	X	X	X	O
Therapeutic Recreation	X	O	X	O	O

X=Not open to residents of state.

O=Open to residents of state.

### ***Immunization Requirement***

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, rubella, mumps, diphtheria, and tetanus before registering for classes. Immunization records must be on file with Student Health Services before students will be allowed to register for classes.

Specific information about immunization requirements is sent with admissions packets, and is also available in most departments and at Student Health Services.



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## FINANCIAL INFORMATION

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Tuition rates are established by the University of Maine System Board of Trustees. The University reserves the right to adjust these charges to respond 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.

Charges in effect as of January 1, 1992.

### ***Tuition***

#### ***Undergraduate Tuition Charges Per Credit Hour***

Maine Resident	\$ 89.00
Non-Maine Resident	\$252.00
New England Regional Program	\$133.50

### ***Fees***

***Activity Fee*** A mandatory fee charged each semester. Students registered for at least one but not more than 5.5 undergraduate credits are charged \$10.00; students registered for at least 6 but not more than 11.5 credits are charged \$21.00; students registered for 12 or more are charged \$30.00.

***Advising and Orientation Fee*** A mandatory \$37.00 fee is charged to newly admitted undergraduate students. This fee is only charged once.

***Application Fee*** A mandatory \$20.00 fee is charged to an applicant who has not previously matriculated at the University of Southern Maine. This fee is only charged once.

***Commencement Fee*** A mandatory \$25.00 fee charged to a student who completes degree requirements. This fee must be paid at least six weeks prior to Commencement.

***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.

***Health Service Fee*** The University provides on-campus health services. Students may use these facilities on a fee-for-service basis. By paying the health service fee, students may reduce or eliminate some service charges. Students planning to register for both fall and spring semesters are charged \$62.00; students registering for one semester are charged \$31.00. Additional information is available from Health Services. A student must be registered for three or more credits to qualify for this optional service. Resident students receive health service fee benefits at no additional charge.

***Health Service and Insurance Package*** This is an optional package that includes the health service fee and health insurance. Students who do not live in University residence halls cannot purchase insurance without paying the Health Service Fee. A student must be registered for six or more credits to participate. Additional information is available from Health Services.

***Installment Payment Fee*** A \$15.00 fee is charged students participating in the University's three and/or four payment plans.

***Insufficient Funds Fee*** A \$10.00 fee is charged when a student's check is returned or a bank card payment is declined for insufficient funds.

***Late Fee*** A mandatory \$25.00 fee is charged to students who do not pay University bills when due.

***Matriculation Fee*** A mandatory one-time \$15.00 fee is charged to create a student record when a student begins pursuing a degree within the University of Maine System.

***Parking Fee*** A sticker, allowing a student to park on campus, costs \$20.00.

***Recreation Fee*** A mandatory \$1.00 per credit charge assessed to all students. The maximum charge is \$12.00.

***Technology Fee*** A mandatory \$2.00 per credit charge assessed all students.

***Testing and Assessment Fee*** A \$10.00 per test fee is assessed students taking the English or math placement exam.

***Transcript Fee*** Students are charged \$3.00 for an official copy of an academic transcript.

### ***Room and Board***

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

### *Resident and Commuter Meal Plans*

9 meal plan with \$15.00 in points	
17 meal plan with \$50.00 in points	
5 meal plan with \$450.00 in points	\$991.00 per semester
13 meal plan with \$90.00 in points	
10 meal plan with \$130.00 in points	\$950.00 per semester

**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 Student Life and Dining Services.

Both resident and commuter students may purchase additional points during the semester.

**Room** University residence halls are located on the Gorham campus and at 645 Congress Street, Portland. Information about housing is available from the Department of Student Life, Room 100, Upton Hall, Gorham (780-5240). Limited parking may be rented for \$120.00 per semester at the Portland Residence Hall.

Gorham Double	\$1,028.00 per semester
Gorham Single (Towers)	\$1,228.00 per semester
Gorham Single (Robie/Andrews and Upton)	\$1,253.00 per semester
Portland, B-Wing	\$1,062.00 per semester
Portland, A-Wing	\$1,115.00 per semester
Portland, YC-Wing	\$1,200.00 per semester
Portland Double Rooms	\$1,115.00 per semester
Portland Suites	\$1,200.00-1,380.00 per semester

All rates are based on full occupancy. An additional \$200 is charged in undercapacity residences.

**Telephone Fee** Students living in University housing may obtain limited telephone service for \$60.00 per semester. Information about restrictions is available from Student Life.

**Lewiston-Auburn College** USM offers courses at Lewiston-Auburn College in conjunction with the University of Maine at Augusta. A separate tuition and fee structure is in effect. For additional information, contact Lewiston-Auburn College.

### *Other Expenses*

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

**Installment Payment** The University offers two optional installment payment plans. Additional information about these plans and associated costs is available from the Student Billing Office (780-5200).

### *Deposits*

When a student is notified of acceptance into a University degree program, a \$50.00 admission deposit is due within two weeks. Newly admitted students who are approved for on-campus 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, or if an applicant for January admission withdraws after January 1. Applicants who provide the Admissions Office with written notification of withdrawal before the previously mentioned dates will have the deposit refunded.

The Department of Student Life establishes and publicizes dates for room selection each spring. Students who are registered for spring semester and request 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 Student Life that housing is not desired before May 1, this deposit will be refunded. If notification is received after May 1, the deposit is forfeited.

### *Payment Procedures and Policies*

**Billing** Each semester, the University establishes specific dates for charging students and mailing bills. It is the student's responsibility to maintain accurate home and local addresses at the Registrar's Office. Students who register during some Orientation sessions, the open registration period, and after classes start are billed at the time of registration. The University is not obligated to mail a bill.

**How To Make Payment** The University offers a variety of payment options.

**Cash** Cash payment may be made at the Student Billing Office or at an off-campus center. Cash should not be mailed.

**Checks** Checks should be made payable to the University of Southern Maine. The student's name and Social Security number should be shown on the check.

**Credit Cards** The University accepts both MasterCard and Visa for payment of tuition and mandatory fees. No more than \$1,300 can be charged each semester and the minimum allowable transaction is \$25.00. Room and board charges cannot be paid by credit card.

**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. Additional information about these plans and enrollment deadlines 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.

**When Payment Is Due** Each semester, the University establishes specific dates payment is due and notifies students of these dates on bills and through University publications.

**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 also 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, unpaid charges or fines owed due to violation of University motor vehicle regulations, and library fines.

### **Add/Drop**

Students may add and/or drop courses during the first week of the semester without incurring a financial obligation. When a student drops a course after the end of the first week, a tuition refund will be calculated in accordance with the refund schedule shown in the following section. University fees are not refunded after the first week. The schedule adjustment period begins with the first day of scheduled University classes and includes weekends and holidays. The date the Registrar receives written notification that a student is dropping a course is used to determine the amount of refund, if any.

### **Refund Policy**

The charges assessed students who withdraw from 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 one year 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 and Room Refunds** The following schedule applies when a student withdraws from the University. University fees are not refunded after the 100% refund period. Students who vacate University housing, but remain enrolled, will be charged in accordance with the terms and conditions of the Residence Hall contract.

<i>Fall and Spring Semester</i>	<i>Refund Percentage</i>
Withdrawal prior to the end of the first week	100%
Withdrawal prior to the end of the second week	75%
Withdrawal prior to the end of the third week	50%
Withdrawal prior to the end of the fourth week	25%
Withdrawal after the fourth week	0%

<i>Special and Summer Sessions more than three weeks</i>	
Withdrawal prior to the first day of class	100%
Withdrawal prior to the end of the first week	75%
Withdrawal prior to the end of the second week	50%
Withdrawal prior to the end of the third week	25%
Withdrawal after the third week	0%

*Special and Summer Sessions that are three weeks or less*

Withdrawal prior to the first day of class

100%

Withdrawal prior to the end of the first week

50%

Withdrawal after the first week

0%

**Board Refunds** Students who withdraw from the University are charged for meals at an established daily rate. Additional information is available from Student Life.

***Rules Governing In-State and Out-of-State Tuition***

A student is classified as eligible, or not eligible, for in-state tuition at the time of acceptance to the University. The decision, made by the campus executive director for Financial Resources, or other official designated by the campus, shall be made in accordance with these rules upon information furnished by the student's application and any other relevant information. No student, having once been registered as out-of-state student, is eligible for in-state tuition classification unless he or she has been a resident of the state of Maine for at least one year immediately prior to registration for the term for which in-state tuition eligibility is claimed, and also has become legally domiciled in Maine before such registration. If the student is enrolled for a full 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 and the burden will be on the student to prove that he or she has established a Maine domicile by the time of such registration.

In general, members of the Armed Forces and their dependents will be granted in-state tuition rates during such periods of time as they are on active duty within the state of Maine.

The domicile of a student who is an unmarried minor follows that of the parents or legally appointed guardian of the student. In such cases, the domicile of the parent with whom the student lives or to whom custody has been granted by court order, or of the student's legally appointed guardian, shall be the domicile of the student.

If a student classified as out-of-state marries a person who is domiciled in the state of Maine and asserts the establishment of a domicile in Maine, that student shall be presumed to be eligible for in-state tuition status at such student's next registration.

To change tuition status, the following procedures are to be followed:

A. Submit "Request for Change of Tuition Status" form to the executive director for Financial Resources, or other designated official. If the executive director for Financial Resources' (or such other official's) decision is considered incorrect by the student:

B. The student may appeal that decision in the following order:

1. To the vice president for Administration.

2. To the president of the campus.

3. To the treasurer of the University System, whose decision shall be final.

In the event that the executive director for Financial Resources (or other designated official) possesses facts or information indicating a 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.

No request for change in tuition status will be considered unless filed on or before September 1 for the fall semester, or on or before January 1 for the spring semester. All applications shall be prospective.

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# STUDENT FINANCIAL AID

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To acquire a higher education a student must invest a significant amount of money, as well as time and talent. For many, college costs represent the single largest and most important expenditure they will ever make. For some, these costs are a serious obstacle. The University assists students by offering various forms of financial aid. During the 1991-92 academic year, more than \$14,000,000 was available from aid programs.

## ***Eligibility for Aid***

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 certain non-citizens. Non-citizens are encouraged to contact the Office of Student Financial Aid for more information.

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 approved by the U.S. Department of Education.

Students receiving assistance must submit a Statement of Registration Compliance. This form certifies that the student has either registered with the Selective Service Administration (all males born after 1959 are required to register) or is exempt from registration.

Students must also submit a statement certifying that they are not in default on repaying a student loan and do not owe a repayment of federal grant funds. This statement is provided by the Student Financial Aid Office. Students who are in default or owe a repayment are not eligible for assistance.

In addition, students receiving a Pell Grant must, as a condition of that award, sign a statement certifying that they will not engage in the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance during the period covered by that award.

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.

## ***Application Procedures***

Students are encouraged to apply for assistance as early as possible. To ensure a fair distribution of funds, priority filing dates are established for fall semester aid applicants. The 1992-93 dates are:

New Students	March 1
Continuing Students	March 30

Students interested in the Summer College Work Study Program must apply by February 12. Students applying for assistance for the spring semester only should have application materials submitted no later than November 2.

Applications are accepted after priority filing dates, although the type and amount of aid offered may be reduced subject to funding limitations.

All students must complete a College Scholarship Service Financial Aid Form (FAF). The FAF is available from most high school guidance offices or the Student Financial Aid Office. The FAF includes detailed instructions for completion. If these instructions are insufficient, please contact the Student Financial Aid Office for help.

When completing the FAF all undergraduate students who do not have a bachelor's degree must apply for a Pell Grant. Students may also use the FAF to apply for state scholarships.

Students and the parents of dependent students are required to submit copies of tax returns directly to the Office of Student Financial Aid. Tax returns must be received by March 30 (fall applicants) or November 2 (spring applicants) to meet priority filing dates. Additional financial records required to verify information reported on the FAF may be requested under separate cover.

Any student who attended any vocational school or college, other than the University of Southern Maine, must also submit a Financial Aid Transcript (FAT) form. This form, available from the Office of Student Financial Aid, is completed by the student and sent to the school(s) previously attended. The FAT must be completed even if the student did not receive aid from other school(s) attended.

Refer to the 1992-93 Filing the FAF available from the Student Financial Aid Office for additional information about the financial aid application process.

### ***How Financial Aid is Allocated***

The University begins reviewing student aid applications in early spring. Once a student is accepted by the Admissions Office, the FAF and appropriate tax returns are 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 receive only the Stafford Loan.

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***

***Pell Grants*** This is a federally funded program to help needy students. In 1991-92 grants varied between \$200 and \$2,400 per academic year.

***Supplemental Educational Opportunity Grants*** This is a federally funded program to help needy students. Grants ranged from \$100 to \$3,300 during the 1991-92 academic year.

***University and Miscellaneous Scholarships*** These are funded by the University and private donors. Awards have ranged from \$100 to \$3,550 and are given on the basis of financial need.

***Work Study Employment*** This is a program funded by the University and the federal government. Eligible students may earn between \$400 and \$3,000 per year. A student's financial need governs the amount that can be earned.

***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. 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 \$30 must be repaid each month. Loans vary between \$200 and \$2,250 annually.

***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 \$200 to \$2,500 for first- and second-year students and from \$200 to \$4,000 for third- and fourth-year students annually.

***Stafford (formerly Guaranteed) Student Loans*** This program, sponsored by the federal and state governments, allows students to secure low-cost loans. Eligibility for Stafford Loans is based on demonstrated financial need. Applications are available through your local lending institution.

***Parent Loans/Supplemental Loans for Students*** These programs, sponsored by the federal and state governments, allow parents and some students to secure relatively low-cost loans. Contact your local bank, credit union, or savings and loan institution for more information.

***Alternative Loans (such as MELA, TERI and ALPS)*** These alternative, credit-based loan programs provide long-term financing options for qualified families. Additional information about these programs may be obtained from the Office of Student Financial Aid.

***Indian Scholarships/Tuition Waivers*** This is a program funded by the University that pays tuition, mandatory fees, and on-campus room and/or board. All one-quarter blood North American Indians who have lived in Maine for at least one year are eligible. The residency requirement may be waived for members of the Passamaquoddy, Penobscot, Malecite, or Micmac Tribes. Certification of tribal status is required.

*Presidential Scholarships* The Presidential Scholarship Program recognizes superior academic accomplishment by assisting in their course of study those undergraduates who demonstrate exceptional academic merit and potential. The scholarships encourage those students who contribute significantly to the life of the University through their academic excellence and intellectual activity.

Presidential Scholars will receive a yearly tuition and fees credit of \$1,000, for a total of up to \$4,000. Scholars are required to maintain a cumulative grade point average of 3.50. Presidential Scholarships are announced at the beginning of each academic year. During the course of the year, scholars participate in special seminars with the President and visitors to the University. For more information, contact the University Advancement Office.

For more information about financial aid programs, contact the Office of Financial Aid, University of Southern Maine, Corthell Hall, College Avenue, Gorham, Maine 04038 or telephone 207-780-5250.

*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.*

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# ACADEMIC POLICIES

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## ***University Degree Requirements***

To be eligible for a baccalaureate degree from the University, a student must meet the following:

- I. minimum proficiency 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.")

## ***Minimum Proficiency Requirements***

Every baccalaureate degree student who is admitted to the University must produce evidence (no credit granted) of both a minimum writing proficiency and a minimum mathematics proficiency. All newly admitted baccalaureate and associate degree students with a SAT Mathematics score below 450 or a Test of Standard Written English (TSWE) score below 43 must take Placement Examinations. Transfer and readmitted students with more than 30 earned credits are not required to take the English placement examination. The mathematics placement examination is required of these students unless they have successfully completed at least one semester of collegiate level work in mathematics. (Details of these examinations may be obtained from the Testing and Assessment Center.) Methods of satisfying the Minimum Proficiency Requirements are summarized as follows:

- A. Evidence of Minimum Writing Proficiency      **Do One**
  1. Score 43 or above on the Test of Standard Written English (TSWE)
  2. Pass the English Placement Examination
  3. Successfully complete ENG 009A or its equivalent (Developmental English) (no degree credit)
  4. Successfully complete ESL 402 (English as a Second Language for non-native speakers of English only).
- B. Evidence of Minimum Mathematics Proficiency      **Do One**
  1. Score 450 or above on the quantitative subtest of the Scholastic Aptitude Test (SAT)
  2. Score 500 or above on the General Mathematics Test of the College Level Examination Program (CLEP). (This will also satisfy the Core curriculum Quantitative Decision Making requirement.)
  3. Pass the Mathematics Placement Examination
  4. Successfully complete MAT 011B (Intermediate Algebra). (Credit for this course applies only toward associate degrees.)

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.

## ***Course Numbering***

001-009	No Degree Credit
010-099	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
600-699	Graduate and Professional Students Only

### ***Note:***

1. All courses carrying number 010-099 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 associate degrees (A.A. and A.S.) and baccalaureate degrees (B.S., B.A., B.F.A. and B.M.).
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 see their prospective dean for a transcript evaluation and 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 010-099 will be removed from the academic record when a student changes from an associate degree program to a baccalaureate program.

## ***Registration***

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 the Advising and Career Services Center of their orientation, advising,



and registration schedule. The Advising and Career Services Center 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 class level. Advance registration is conducted near the end of each semester for the following semester. Eligible students who fail to advance register must then wait until the open registration period which immediately precedes each 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. No registration is complete unless all related financial obligations to the University are satisfied. No registration will be accepted after the second week of classes.

### **Grading System**

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
B	Honors
C	Satisfactory, successful, and respectable 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
P	Pass; given only for certain courses open to the pass-fail option
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, and their department chair, 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 automatically counted as an F in the grade point average and so indicated on the student's permanent record. Under special circumstances, the instructor may request that the dean extend the time limit for a specific period.
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.
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 assign students invalid grades for a course, or 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 subsequent semester. The Registrar shall notify faculty members involved and their department chair of students who have carried unresolved MGs on their transcript for one semester. If the missing grade is not resolved by the instructor, an MG grade will be automatically counted as an F in the grade point average and so indicated on the student's permanent record. Under special circumstances, the instructor may request that the dean extend the time limit for a specific period.
W	Withdrawal after the first week through the eighth week of a semester. If a student has not officially withdrawn by the end of the eighth week of the course, one of the above regular grades, normally F, will be assigned. The W notation may be obtained after the eighth week under unusual circumstances if so determined by the instructor and the dean. A threat of failure is not considered to be an unusual circumstance.
Y	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.

*Note:* grades of A+ and D- are not valid.

### **Grade Point Averages**

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	4.00 grade points per credit hour
A-	3.67 grade points per credit hour
B+	3.33 grade points per credit hour

B	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	1.00 grade points per credit hour
F	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.

### ***Dean's List***

At the end of each semester, full-time, undergraduate degree students (12 credit hours or more) with grade point averages of 3.2 or above will be placed on the Dean's List. Those students on the list, whose names appear in the Public Directory of the University, will have their names released to the news media. Part-time students who attend both the fall and spring semesters and complete 12 credit hours are eligible for the Dean's List at the end of the spring semester. The eligibility requirements are the same as for full-time students except that the coursework for the entire year is considered.

### ***Minimum Grade and Academic Suspension***

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

	<i>For Good Standing</i>	<i>For Probationary Standing</i>
<i>Associate Degree Students</i>		
0-15 credit hours	1.60	1.35
16-30 credit hours	1.80	1.60
31-45 credit hours	2.00	1.80
<i>Baccalaureate Degree Students</i>		
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
<i>Non-Matriculated Students</i>		
0-15 credit hours	1.60	1.35
16-30 credit hours	1.80	1.60

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 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., ATE 380, ATE 381, and ATE 402. No more than one D grade will be accepted in the technical and professional courses required of industrial arts majors.

### ***Re-enrollment after Academic Suspension***

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.

### ***Unsatisfactory Progress***

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.

### ***Academic Dismissal***

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.

### ***Non-Matriculated (Special) Students***

Non-matriculated (special) students may register on a space-available basis for undergraduate courses providing the student meets the prerequisites for the course. Non-matriculated students are limited to 30 credits that can be applied to a USM degree. Students who have been denied admission are not permitted to register for courses at USM.

### ***Class Membership***

A minimum of 120 credit hours is required for graduation in most baccalaureate-level programs and 60 credit hours in associate-level programs. At least 30 credits should be earned each year. To progress satisfactorily through the University, a full-time student would carry 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 19 percent of the hours required for graduation, for junior standing 44 percent, and for senior standing 69 percent.

The required number of credit hours by classes, schools, and colleges are:

<i>School or College</i>	<i>Sophomore</i>	<i>Junior</i>	<i>Senior</i>
Applied Science	23	53	83
Arts and Sciences	23	53	83
Business, Economics and Management			
Baccalaureate Programs	23	53	83
Two-Year Business	23		
All Other Programs	23	53	83

### ***Add/Drop***

Once a semester commences, a period of one week is permitted to add or drop courses. Adds require the signature of the instructor, but drops should be completed with the Registrar without a signature. Drops processed during the first week do not have financial penalty. Drops completed after the first week will result in a partial refund in accordance with the refund schedule given in the Financial Information section of this catalog. This procedure enables the student to make the necessary changes in the planned curriculum. A student dropping a course after the first week through the eighth week of classes will receive the grade notation of W. If a student has not officially withdrawn by the end of the eighth week of the course, he or she will be assigned a regular grade, normally F. The W notation may be assigned after the eighth week 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 in any one of the procedures described above will be graded F in the course and must assume all financial obligations associated with it.

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.

### ***Pass-Fail Option***

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 student's choice is kept confidential and the instructor grades the student in the same manner as the rest of the class. The Registrar will retain the instructor's submitted grade on file. If the grade is A, B, C, or D, it will be converted to a P and any other grade will be handled as described in the Grading System section of this catalog. Please note that F grades will be included in grade point average computation.

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 exercise the pass-fail option only during a registration period or during the add period each semester. The pass-fail option, once contracted, may be reversed only during the add period.

### ***Repeated Courses***

When a student repeats a course and earns a grade of A, B, C, D, F, or P, 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 not be taken at other institutions.

### ***Auditing Courses***

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 at registration.

### ***Independent Study***

Junior and senior students may elect independent study in their major for one to six credits. Normally, no more than three credits may be earned in a semester. The student submits an independent study application which includes a detailed description of the proposed program of study. Permission of the instructor and approval by the department chair are required. The approved independent study form is filed with the Registrar during the registration period.

### ***Variable Credit Courses***

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.

### ***Grade Report***

Grade reports are mailed to all students at their home address of record approximately two weeks after the end of each semester. Final grades cannot be secured in advance from the Registrar.

### ***Permanent Academic Record***

The permanent academic record, including transfer credit evaluation, is maintained by the Office of the Registrar for all students of the University. While the grade report is the unofficial notification to the student, academic dean, and advisor of the student's academic achievements for a given semester, 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. There is a charge of three dollars for each transcript. Other types of transcripts are: Unofficial-Issued Directly to Student, available at no charge to an active student, but limited to one per semester and only after grades are posted for that semester; Placement Transcript, provided for the student's placement folder. This is unofficial, but may be reproduced by the Advising and Career Services Center for prospective employers at no additional cost.

### ***Academic Record Changes***

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***

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.

### ***Graduation Requirements***

In addition to the minimum requirements of 120 credits for a baccalaureate degree and 60 credits for an associate 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.

## ***Residence Requirement***

For all baccalaureate degrees at the University, a minimum of 30 credit hours including at least 9 hours in the major field, must be completed while registered in the school or college from which the degree is sought (15 credit hours for associate degree programs). A student may earn no more than 6 of these credit hours at another campus of the University of Maine System. Unless special permission is granted by the dean of the school or college concerned to pursue work elsewhere, the work of the senior or final year must be completed at this University.

## ***Graduation with Distinction***

Calculation of the grade point average (GPA) necessary for graduation with distinction will be based upon the student's final 90 credit hours taken either at USM or other institutions. Students who have not completed 90 traditionally graded undergraduate credit hours will not be eligible for graduation with distinction unless an exception for nontraditional credit is granted by the appropriate dean. A preliminary tabulation of the GPA based upon the student's last 75 credit hours (excluding the spring semester grades for May graduates) taken at either USM or other institutions will be made for the purpose of wearing honor cords at Commencement exercises: white cords (*summa cum laude*), blue cords (*magna cum laude*), gold cords (*cum laude*).

In order to qualify for graduation with distinction, students must earn a GPA of (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*.

## ***Post-Baccalaureate Study for Second Degree***

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.

## ***Withdrawal from the University***

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 Advising Center and require a signature. The date of withdrawal will normally 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 first week of the semester, there will be no courses or grades recorded. Students withdrawing after the first week through the eighth week will receive a W grade for each course in which the student was enrolled. Students withdrawing after the eighth week will receive regular grade designations as determined by the instructors. Under unusual circumstances, grades of W can be assigned after the eighth week 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.

## ***Matriculation Status (Leave of Absence)***

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 simply file a re-entry form with the Transfer Affairs Office. If, however, a student wishes to resume studies as a degree candidate after the ten-year period has elapsed, an admissions decision will be made. Readmission applicants should contact the Transfer Affairs Office for the proper forms.

## ***Catalog Effective for Graduation Requirements***

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 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.

### ***Change of Major within a School or College***

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 the Advising and Career Services Center.

### ***Change of College or School***

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

### ***Double Majors***

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.

### ***Attendance Policy***

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.

### ***Student Academic Integrity Policy***

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 integrity 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.

### ***Examination Policy***

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.

### ***Absence from a Final Examination***

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.

### ***Confidentiality Policy***

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.

### ***Clinical Course Requirements***

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.

### ***Student Academic Appeals Policy***

In order to guarantee a fair and equal adjudication of student grievances in the areas of academic affairs, the University of Southern Maine policy is as follows:

1. Academic grievances generally involve such matters as appeal of grades granted by individual members of the faculty, or student appeal of what he or she feels to be unfair or discriminatory treatment by a faculty member. The following steps are to be followed:

a. The student first proceeds through the regular administrative appeal process which involves, in the order stated, student contacts with the following:

- (1) The faculty member involved.
- (2) The department chairperson.
- (3) The dean of the school or college involved.
- (4) The provost and vice president for academic affairs.

b. If, after this administrative appeal process has been completely pursued, the student continues to feel the grievance has not been satisfactorily resolved, he or she may request that the University of Southern Maine Student Senate convene the Student Grievance Committee. The Student Grievance Committee shall report its findings to the president.

c. The final decision on any student academic grievance, after it has progressed through (a) and (b) above rests with the president, after receipt of recommendations from involved parties in (a) and (b) above.

2. It is the prerogative of the president to modify this policy. Modification will normally only take place after any requested change has been reviewed by both Faculty and Student Senates.

### ***Student Administrative Appeals Policy***

In order to guarantee a fair and equal adjudication of student grievances in the areas of administrative decisions, the University of Southern Maine policy is as follows:

1. Administrative decision appeals generally involve all matters affecting a student while at USM other than matters affecting grades. (Grading matters are appealed through the Student Academic Appeals Policy.) The following steps are to be followed:

a. The student first proceeds through the regular administrative appeal process which involves, in the order stated, student contacts with the following:

- (1) The administrator or staff person involved.
- (2) The department superior.
- (3) The department or division director if other than (2) above.
- (4) The appropriate vice president for the area involved.

b. If, after this administrative appeal process has been completely pursued, the student continues to feel the grievance has not been satisfactorily resolved, he or she may request that the University of Southern Maine Student Senate convene the Student Grievance Committee. The Student Grievance Committee shall report its findings to the president.

c. The final decision on any student administrative decision grievance after it has progressed through (a) and (b) above rests with the president, after receipt of recommendations from the involved parties in (a) and (b) above.

2. It is the prerogative of the president to modify this policy. Modification will normally only take place after any requested change has been reviewed by both Faculty and Student Senates.

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## ACADEMIC SUPPORT SERVICES

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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.

### ***Academic Advising***

Following initial advising and registration, students, during their first semester at the University, are assigned for permanent advising to the department of their declared academic major. 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 may be delayed. For such students the following arrangements are made.

*Students who have not declared a major* are provided academic advising by the Advising and Career Services Center. An academic counselor 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 with conditions"* are assigned to the Advising and Career Services Center staff for academic advising during the period they complete required coursework. Upon completion of these requirements, the student is assigned an advisor in his/her major department.

*Non-Matriculated (Special) 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 and Career Services Center staff.

Students having questions regarding general academic policies and procedures, as well as about other aspects of University programs, are encouraged to contact the Advising and Career Services Center in Payson Smith Hall on the Portland campus (780-4040), in Corthell Hall on the Gorham campus (780-5340), and at Lewiston-Auburn College in Lewiston (783-4860).

### ***University Library***

The University Library provides a full range of services on both campuses. In Portland, the library is located in Luther Bonney Hall, and in Gorham, it is located in Bailey Hall. During regular semesters, these libraries are open seven days a week for a total of 108 hours. The library at Lewiston-Auburn College is open Monday-Friday and some Saturdays. Among the services available are: circulation and reserves, informational and research reference, bibliographic instruction, electronic database searching, and interlibrary borrowing.

The collection represents over a million items including: nearly 3,000 current subscriptions to journals, magazines, newspapers, and yearbooks; over 887,000 microforms; 83,000 international, U.S., and state documents; the Smith and the Osher Collections of antique maps, globes, atlases, and geographies representing over 25,000 individual maps; University Archives; and other special collections. These collections are supplemented by the nearly 1 million titles held in the other libraries of the University of Maine System which are presented on the URSUS online catalog, and also by the 21 million titles to which we have access through the OCLC online interlibrary loan network.

The Library staff is dedicated to its primary responsibility of supporting the educational, scholarly, and public service activities of the University community. It also recognizes a responsibility to serve the information needs of the citizens of Maine.

### ***Academic Computer Services***

The University has available the following academic computer facilities: MS/DOS microcomputers, Apple II, Macintosh (on the Portland, Gorham and Lewiston campuses and at the off-campus centers); an IBM 4341 mainframe (located on the Portland campus and linked to three other IBM mainframes in the University of Maine System); an ATT 3B15, a network of DEC workstations, and a NEXT workstation (on the Portland campus and for use by students in upper-level computer science courses). The mainframe computer is linked to the BITNET and the INTERNET network, allowing communication with mainframe computers all over the United States, Canada, and Europe. Many faculty and student access terminals located on both the Portland and Gorham campuses are available to connect with any of these systems.

Student Microlab Centers are located on the Portland, Gorham and Lewiston campuses and are open extended hours during the semester. The MS/DOS microcomputers offer a unique, menu-driven selection system with such general purpose software as word processing and electronic spreadsheets and more course-specific software.



Most residence halls on the Gorham campus have computer rooms with terminals connected to the Portland mainframe. Students who live in dormitory rooms on the Gorham campus and have IBM or compatible microcomputers may connect to a local area network for access to the same selection of software that is available to the general access clusters.

### ***Educational Media Services***

Educational Media Services provides audiovisual services that support the academic program of the University. These services include the maintenance and delivery of audiovisual equipment for classroom use on both campuses.

There are film and videotape catalogs available in both offices that are sources for renting instructional materials for classroom use. There is also a collection of nonprint instructional materials available for USM classroom use.

Instructional materials for classroom use may be produced on the Gorham campus. Examples of these materials include overhead transparencies, slides, black and white photographic prints, audio and video tape recording, and duplication and laminations.

### ***Testing and Assessment Center***

The Testing and Assessment Center coordinates the administration for various national tests (GRE, NTE, LSAT, GMAT, TOEFL, etc.) and correspondence course tests. Test dates and registration-information booklets are available at the Center's office. The Center administers locally developed placement examinations. These exams are used to evaluate the entry-level skills of newly admitted students in math and English. Advising and Career Services assists the Center by registering students for these exams and giving results. The Center conducts student assessment studies, assists departments in evaluating programs, develops tests and assessment instruments, and provides technical support to faculty.

Students are encouraged to contact the Testing and Assessment Center for information Monday through Friday from 8:00 a.m. to 4:30 p.m. at 102 Payson Smith Hall on the Portland campus.

### ***International Students***

The International Student Development office works closely with international students throughout their academic program at USM, including pre-arrival. The staff provides information and support in a wide range of areas including international student orientation, immigration policies and procedures and on-going adjustment to the campus and community. Through the International Student Association, students can both stay in contact with other international students on campus, and meet students interested in other cultures. The International Student Development office is located at 39 Exeter Street on the Portland campus (780-4959).

The University offers a limited number of tuition waivers to international students. Information about these waivers is available from the graduate and undergraduate admissions offices.

### ***National and 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. Through National Student Exchange, the University is affiliated with over 80 universities in the U.S. For further information regarding the National Student Exchange programs, contact the Registrar's Office, 780-5236.

International Study is facilitated through the Office of International Student Development, which maintains links to and information on programs offered throughout the world. Established exchange programs to England, France, Austria, Ukraine, Holland, and Ireland are offered each year. For information regarding International Study Programs, contact the Office of International Student Development at 780-4959, 39 Exeter Street, Portland. Students interested in study abroad opportunities should contact the representative in their school or college.

### ***Learning Assistance Program***

Developmental courses provide students with instruction to help them achieve proficiency in writing (ENG 009), in mathematics (MAT 009), and in critical reading skills (RDG 009). In addition to providing developmental courses, the Learning Assistance Program also provides the following support services.

***Academic Support Center*** The Center offers tutorial services in mathematics, writing in all disciplines, word-processing, study skills and self-instructional materials.

***Academic Support for Students with Disabilities*** This office provides a wide variety of services for students with varying disabilities who are taking credit-bearing courses. The services include tutoring, notetaking, providing test and course accommodations, interpreting, and other appropriate accommodations. Students may be asked to provide documentation. The Office coordinates with the Academic Support Center, the faculty teaching developmental courses, and virtually every University department.

Students are advised to contact the Office before each semester to plan their program so that appropriate accommodations can be made. The Office is located in Payson Smith Hall on the Portland campus. Call 780-4706 (voice) or 780-4395 (T.D.D.) to schedule an appointment.

**First Year Alternative Experience (FYAE)** The First Year Alternative Experience is a pilot program designed to provide added support to students who are academically underprepared, yet show promise. Entrance into the FYAE program is determined by the Office of Admissions. All students who matriculate at USM through the First Year Alternative Experience are admitted with conditions, as described elsewhere in this catalog. FYAE students may participate in all University activities, with the exception of intercollegiate athletics.

Features of the First Year Alternative Experience include a distinct schedule of courses in a small class environment, academic counseling and close monitoring of student progress, and “learning labs” which enable students, on a regular basis, to expand on the classroom experience.

Students may begin the First Year Alternative Experience in the fall semester only, enrolling either half-time (two courses) or full-time (four courses) for each of the fall and spring semesters. At the end of each semester, academic standing for FYAE students will be determined by the semester grade point average, not the cumulative grade point average.

For more information about the First Year Alternative Experience, contact the Program coordinator at 780-4470.

### ***Off-Campus Advising***

Students attending an off-campus center (Saco-Biddeford or Sanford) may take advantage of numerous advising and support services provided on site. Each center is staffed by an academic advisor who provides services in cooperation with the appropriate on-campus department. Services include academic advising, new student programs, placement testing, financial aid assistance, veterans' counseling, registration, student billing, and admissions information. A more in-depth description of off-campus programs and services is available in the Division of Off-Campus Instruction and Academic Support section of this catalog.

### ***Off-Campus Site Libraries***

All off-campus centers have access to URSUS, the online catalog. The University contracts with the public library in Saco to provide books, journals, reference assistance, and interlibrary loan services to off-campus students and faculty. Off-campus students and faculty are also encouraged to use the library facilities in Portland and Gorham.

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## STUDENT AFFAIRS

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The Division of Student Affairs provides a foundation of co-curricular educational opportunities and services to meet the needs of USM's diverse student body. The services and programs offered by the Division are described in this section.

### ***Admissions***

The Office of Admissions attracts and enrolls academically qualified students who are diverse in age, background, experience, and preparation. Enrollment Services Centers are located on both campuses and serve as one stop locations for admissions counseling, advising, and registration services. The Portland center is in Payson Smith Hall and the Gorham center is in Corthell Hall. For more detailed information about undergraduate admissions, refer to the Undergraduate Admissions section of this catalog.

### ***The Advising and Career Services Centers***

The Advising and Career Services Centers provide comprehensive academic advising and counseling for students who have undeclared majors, who have been admitted to the University with conditions, and who are non-matriculated or "special." Those students who have declared a major are assigned a faculty advisor in their school or college. Career services provided include career counseling, interest testing, part- and full-time job placement, a computerized career exploration service, and information about internships.

The Advising and Career Services Centers are also responsible for completing transfer credit evaluations, for evaluating prior learning through CLEP and DANTES examinations, military records, portfolios, and other procedures and for providing transfer credit evaluations for all undergraduate international students. The Centers are located in Payson Smith Hall on the Portland campus (780-4040), in Corthell Hall on the Gorham campus (780-5340), and in Upton Hall on the Gorham campus (780-5336).

### ***Athletics***

The USM Athletic Department supports the NCAA Division III philosophy which places the highest priority on the overall quality of the student athlete's educational experience. USM offers the following sports for men: cross country, soccer, basketball, ice hockey and baseball. Sports offered for women include: field hockey, soccer, basketball, cross country and softball. Tennis is open to both men and women. The university is a member of the National Collegiate Athletic Association, Eastern College Athletic Conference, the Little East Conference, and the Maine Association of Inter-collegiate Athletics for Women. Student athletes have an opportunity to qualify for and participate in state, regional, and national tournaments. For more information, contact the Department of Athletics (780-5430).

### ***Counseling Center***

Counseling services are available to all students at the University of Southern Maine. At times, students may have concerns and questions that interfere with their academic or personal success. Typically, students seek out counseling services for these and other reasons: developing confidence in self; coping with depression, anxiety, or stress; managing interpersonal conflicts; developing satisfying relationships; understanding and coping with family dynamics; managing multiple responsibilities; or handling a personal crisis. Professional staff counselors and psychologists are available for individual and group counseling, emergency assistance, and referral services for students having more severe personal problems. The office is located in Payson Smith Hall (780-4050).

### ***Financial Aid***

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. The office is located on the Gorham campus in Corthell Hall (780-5250). 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.

### ***Police and Safety***

Police and Safety 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 office is located on the Gorham campus in Corthell Hall (780-5211 or emergency number, 780-5000).

### ***Registrar***

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 such critical functions as academic honors, sanctions and dismissals, national student exchange programs,

and veterans affairs. The Office of the Registrar is in Portland in Payson Smith Hall (780-4076) and in Gorham in Corthell Hall (780-5230). For information about National Student Exchange opportunities, call 780-5236. For information about veterans affairs including certification, liaison with the Veteran's Administration, and academics, call 780-4043.

### ***Student Health Services***

Student Health Services promotes and protects good health and helps to prevent disease. Programs and services are available to students taking three or more credits. A team of registered nurses, physicians, and nurse practitioners provide primary care for illness and injury at the Portland and Gorham health centers. Resident students receive most health services free, or at reduced rates, as part of their room and board package, as do commuter students who enroll in Part A of the Student Health Services Plan. An inexpensive accident and illness insurance plan is also available to students enrolled in the health plan. Commuter students not enrolled in Part A of the health plan will be billed on a fee-for-service basis. The Portland health center is located in the Portland Gym (780-4211) and the Gorham health center at 110 Upton Hall (780-5411).

Additionally, Student Health Services provides a Health Education Program to increase students' knowledge of their health and the health care system. Substance abuse prevention and education is available as well as intervention and counseling services for the high risk and identified abuser. For more information about health education, peer health education, and substance abuse, call 780-5411.

Compliance with the state immunization law is also coordinated by Student Health Services. For more information about the law, see the Undergraduate Admissions section of this catalog.

### ***Student Life***

The Department of Student Life fosters community development on both the Portland and Gorham campuses by working with residence hall, Greek, and commuter students. Student Life provides students with essential services such as residence and dining facilities, student group advising, and program delivery. The following describes the functional areas which comprise Student Life.

#### ***Dining Services***

Dining facilities exist at four separate campus locations. In Gorham, the main University dining facility accommodates 650 students and offers a regular board meal plan during the academic year. A snack bar, in the newly renovated Student Center in Gorham, offers short-order and deli fare. On the Portland campus, Portland Hall offers regular board meal service and the Campus Center Cafeteria provides meals a la carte. Catering for special functions is available at all locations. Meal plans are available for both resident and commuter students and can be tailored to meet individual needs. For more information, call Student Life at 780-5240.

#### ***Greek Life***

Greek Life offers students the opportunity to participate in an alternative community emphasizing leadership, community service, academic achievement, and self-governance. Eight social fraternities and sororities are affiliated with USM. Four of the fraternities maintain off-campus houses, and other organizations have developed on-campus housing programs coordinated by the Department of Student Life. For more information, call 780-5470.

#### ***Honor Societies and University Scholarships and Awards***

The University is currently affiliated with 11 national honor societies, some tied to academic majors such as history and foreign languages, and some, like Phi Kappa Phi, recognize overall academic achievement. For more information, call 780-4035.

The University has developed a Scholarships and Awards program to recognize outstanding students and each academic year makes applications for scholarships and awards available in December. These honors are given to students at the Honors Convocation Ceremony in late spring. For more information, call 780-4090.

#### ***Intramural and Recreation Programs***

USM offers a variety of recreational activities and intramural athletic opportunities. With gymnasiums on both campuses, students can take part in organized programs or work out on their own. Both gyms have weight training facilities and offer aerobic programs. Racquetball and squash courts are available at the Portland gym. Athletic equipment, including cross-country skis, is available for student use at the Gorham gym. Team competition is held in basketball, volleyball, softball, flag football, soccer and wallyball. Individual competition is offered in tennis, golf, racquetball, biking and running. For more information, call 780-5132.

#### ***Off-Campus Housing***

The University maintains lists of available rooms and apartments to assist students who wish to live off-campus. The lists are available in the Department of Student Life, 100 Upton Hall, on the Gorham campus and the Advising and Career Services Center in Payson Smith Hall on the Portland campus.

### *Child Care Services*

University Child Care Services, though part of the Division of Human Resources, complements the mission of Student Affairs by serving over 400 children of students, faculty, staff, and alumni. Programs are provided for children from infancy to teens, in three facilities—Portland campus, downtown Portland Center, and Gorham and include: full-day child care (7:30 a.m. - 5:30 p.m.), after and before school and kindergarten care in Gorham, flex-care (child care services on a block basis), infant, toddler, and pre-school care, summer and school vacation camps. Student scholarships, provided by the Student Senate and the University, are available for eligible students. For more information, call 780-4125.

### *Residence Halls*

The University provides student housing for approximately 1,450 students in 10 residential units on the Gorham campus and in the city of Portland. Accommodations are coeducational and provide a variety of living options for students. The residence halls have their own governance organizations which promote community development and offer educational and recreational hall programs. For more information, call 780-5240.

### *Student Activities and Campus Centers*

Co-curricular activities at USM provide a chance for students to develop their talents, interests, and leadership capabilities. Centers on both campuses provide meeting areas and program space for social, educational, cultural and recreational activities. The Portland Campus Center houses an a la carte dining facility, lounge, study spaces, art gallery, microcomputer room, a bookstore and an Office of Student Life. The newly renovated Gorham Student Center offers a snack bar, student mailboxes, student organization offices, performance space, a lounge, a bookstore and an Office of Student Life. For more information call 780-4090 or 780-5470.

### *Student Government and Organizations*

A 21 member Student Senate, elected by undergraduates, is the principal governing body for students. A student activity fee, collected from each student, is used by the Senate to pay for undergraduate activities.

Students interested in journalism, literature or broadcasting may join the staff of the University *Free Press*, a weekly student newspaper; *The Review*, a literary magazine; or WMPG-FM, the student 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. Regular performances are given by student groups such as the award-winning Russell Square Players, the University Chorale and the Chamber Orchestra. In Portland, the Southworth Planetarium and the Area Gallery in the Campus Center, and in Gorham, the Art Gallery and the Museum of Cultural Change, offer programs year round. In addition, many student organizations bring noted artists, performers, and speakers to USM. For further information call Student Life 780-4090 or 780-5470.

### *Student Judicial Affairs*

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 Student Judicial Affairs 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, call 780-5242.

### *The Women's Center*

The Women's Center, with locations on both campuses, serves as a safe place and referral service for women and supportive men at USM. It's a good place to meet people, find answers to questions of concern to women, get referrals to specialized campus and community resources, and just be in a safe and supportive atmosphere. The Women's Center complements the Women's Studies Program (the academic degree program) and the Women's Forum (the student organization) by being open to all: students, staff, faculty, and alums. For more information, 780-5523.

### *Important Campus Policies*

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 USM Navigator*, the student handbook, which is available to all new students. In order to review these policies in their entirety, please consult the student handbook or the appropriate department listed.

### *AIDS Policy*

The USM AIDS (Acquired Immune Deficiency Syndrome) 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, contact the USM AIDS Task Force at 780-4211 or 780-5411 or 780-5383.

### *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.

Students with substance abuse problems may take advantage of diagnostic, referral, counseling and prevention services available through the Substance Abuse Prevention Program or the USM Counseling Center. For more information, call 780-5164.

### *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, property loss, lost and found or to report suspicious persons or maintenance/safety problems, call Police and Safety at 780-5211, or emergency 780-5000.

For property loss and safety concerns in the residence halls, you can also contact your Resident Assistant or Area Director or the Student Life Office at 780-5240.

For sexual assault or physical or domestic violence, you may call Police and Safety (24 hours a day) at 780-5211 or emergency 780-5000. You can call your Resident Assistant or Area Director, 780-5240 (if you live in the residence halls), the USM Counseling Center, 780-4050, or the Rape Crisis Center, 774-3613.

### *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 Maine System 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 Maine System 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 780-5171 (T.D.D. 780-4395), or to 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*

Sexual assault, including rape by an acquaintance or stranger, is prohibited by University policy and State of Maine law. The University of Southern Maine does not tolerate sexual assault in any form. Violators of this policy will be subject to disciplinary measures, up to and including dismissal.

For a complete copy of the University of Southern Maine Sexual Assault Policy, you may contact the Office of the Vice President for Student Affairs, 780-5247.

It is important to tell someone when you have been sexually assaulted, and to tell someone you can trust. Campus resources include Student Affairs staff and other University faculty and staff, academic advisers, Resident Assistants (RAs), Residence Director Counselors (RDCs), Greek Advisers, and athletic coaches. Off-campus community resources include your local hospital emergency rooms, rape crisis centers, and local police departments.

*Available Resources*

*USM Student Health Center*

*Services:* Medical assessment and follow-up, testing for sexually transmitted diseases and pregnancy. In Portland (Portland Gym): 780-4211 or in Gorham (Upton Hall): 780-5411.

*USM Counseling Center*

*Services:* Counseling for student-victims and students related to victims. In Portland (101 Payson Smith): 780-4050.

*USM Police and Safety*

*Services:* 24-hour security and policing function. In Portland (First Floor, Luther Bonney): 780-5211 or in Gorham (Basement, Corthell Hall): 780-5211. **Emergency: 780-5000.**

*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.

Rape Crisis Center (Cumberland and York County) .....	774-3613
Bath-Brunswick Rape Crisis Hotline .....	1-800-822-5999
Lewiston-Auburn Sexual Assault Crisis Center .....	795-2211
Augusta Area Rape Crisis Center .....	626-0660

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# THE CORE CURRICULUM

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*Core Council:* Boyle, Colucci, Cowart, Eastman, Hitchcock, Irish, Paltrow, Smith

## ***Rationale and Structure of the Core Curriculum***

The Core curriculum at USM has been designed to provide undergraduates with a general education, a core of skills, and knowledge that educated persons need in order to excel in their professional and personal lives.

The Core curriculum includes three components:

- A. The *basic competence* component aims to develop academic skills in writing, using quantitative information, and critical thinking. The student must take (1) English composition or its equivalent, (2) an approved mathematics course, and (3) an approved philosophy or "skills of analysis" course. (In the case of English and mathematics, the University requires inadequately prepared students to meet *minimum proficiency* levels through developmental coursework.)
- B. The *methods of inquiry/ways of knowing* component introduces the student to the 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. The student must take one approved performance-centered and one approved history-centered art course, but may not take both in the same department.
  - (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 alien cultures. The student must take one approved literature course and one approved course dealing with other times or 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. The student must take two approved social science courses.
  - (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. The student must take one approved science course with a laboratory section.
- C. The *interdisciplinary* component seeks to counteract the fragmentation that can result from compartmentalizing knowledge in academic specialties. These courses aim to show the student that the assumptions and methods of different disciplines may be conjoined in the study of a single issue or topic to achieve insight and understanding that is not merely the sum of the component disciplines. Interdisciplinary courses are developed under the guidance of the Core Council, a body with representation from all the schools and colleges. These courses are introduced and discontinued on a regular and periodic schedule. The student must take one interdisciplinary course after having completed his or her English composition and "skills and analysis/philosophy" requirements.

## ***Core Curriculum Requirements***

### **Basic Competence**

English Composition     **Do one**     (3 credits)

\*Writing proficiency must be met before registering for an English Composition course. See Academic Policies section of the catalog for information on proficiency requirement.

Successfully complete ENG 100C or ENG 101C

Score 59 or above on the TSWE (no credit)

Score 500 or above on the CLEP General or English Composition Test

Satisfy composition standards in ENG 100C or ENG 101C by the second week of the term (no credit)

Quantitative Decision Making     **Do one**     (3 credits)

\*Mathematics proficiency must be met before registering for a Quantitative Decision Making course. See Academic Policies section of the catalog for information on proficiency requirement.

Successfully complete an approved MAT 100-level course

Successfully complete an approved statistics course (MAT 120D, PSY 201D, or SOC 207D)

Pass a locally administered examination (no credit)

(Students in departments that do not specify mathematics requirements should consult their advisors or the Advising Center for guidance in selecting a course in this area.)



**Skills of Analysis/Philosophy Do one (3 credits)**

Successfully complete an approved PHI 100-level course

*Note:* Any 100-level Philosophy (PHI) course can be repeated by taking any other 100-level Philosophy (PHI) course in accordance with the University Repeat Course Policy.

Successfully complete an approved Skills of Analysis course

**Methods of Inquiry/Ways of Knowing**

**Fine Arts Do one each (6 credits)**

Successfully complete an approved performance-centered arts course

Successfully complete an approved history-centered arts course

The fine arts courses must be selected from different departments.

**Humanities Do one each (6 credits)**

Successfully complete an approved literature course

Successfully complete an approved other times/other cultures course

The humanities courses must have different course prefixes.

**Social Sciences Do two (6 credits)**

Successfully complete two approved social science courses

The social science courses must be selected from different departments.

**Natural Science Do one (4 credits)**

Successfully complete one approved natural science course

The natural science course must include a laboratory.

**Interdisciplinary (3 credits)**

Successfully complete one approved COR interdisciplinary course

The prerequisite for COR courses is the successful completion of both the basic competence English composition and the skills of analysis/philosophy requirements.

*Note:* Any course with a COR prefix can be repeated by taking any other course with a COR prefix in accordance with the University Repeat Course Policy.

*Note:* Core curriculum requirements differ slightly for engineering majors. See the Department of Engineering section of this catalog for specific Core curriculum requirements for engineering majors.

**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 and Career Services Center. Declared majors should consult their school, college, or department advisors.
2. One Core-designated course in a student's major may be used to satisfy a Core curriculum requirement.
3. The student should satisfy the basic competence requirements before the completion of 60 credits.
4. The student should successfully complete the COR interdisciplinary course before the completion of 90 credits.
5. Courses taken to satisfy the Core curriculum requirements may not be taken on a pass-fail basis.
6. A COR interdisciplinary course may be used to satisfy the Methods of Inquiry/Ways of Knowing requirement of the Core curriculum.

**Transfer Students and the Core Curriculum**

All transfer students in a baccalaureate degree program 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 requirement* can normally be 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 *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. 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.

### Interdisciplinary

All transfer students granted less than 60 credits at the time of admission to the University are required to take the COR 100 level interdisciplinary course. Students granted 60 or more transfer credits are exempt from this Core curriculum requirement.

## Courses Approved to Satisfy Core Curriculum 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.

### Basic Competence

#### English Composition

ENG 100C College Writing

ENG 101C Independent Writing

#### Quantitative Decision Making

ELE 105D Engineering Decisions

MAT 100D College Algebra

MAT 105D Mathematics for Quantitative Decision Making

MAT 109D Linear Systems

MAT 110D Business Calculus

MAT 120D Introduction to Statistics

MAT 131D Number Systems for Elementary Teachers

MAT 140D Pre-Calculus Mathematics

MAT 152D Calculus A

MOS/

SBS 320D Research Methods and Statistics

PSY 201D Statistics in Psychology

SOC 307D Statistical Methods for Social Research

COS 101D Quantitative Decision Making Using Computers

#### Skills of Analysis/Philosophy

MOS/

SBS 370E Ethics and the Organization

LIN 112E Analyzing Language

PHI 101E Introduction to Philosophy: Free Will and Determinism

PHI 102E Introduction to Philosophy: Quest for Certainty

PHI 103E Introduction to Philosophy: Human Alienation

PHI 105E Introduction to Philosophy: Philosophy through Its History

PHI 106E Introduction to Philosophy: Why Philosophize?

PHI 107E Introduction to Philosophy: World Philosophy

PHI 110E Introduction to Philosophy: Self and Society

PHI 111E Introduction to Philosophy: Philosophical Reading (and Writing)

HTY 377E Chinese Thought

ENG 110E Straight and Crooked Thinking

### Methods of Inquiry/Ways of Knowing

#### Fine Arts

Performance-centered arts

ART 141F Fundamental Design I (2-D)

ART 151F Fundamental Drawing I

COR 119F The Illuminated Autobiography

ENG 201F Creative Writing

ENG 300F Fiction Writing

ENG 301F Poetry Writing

ENG 302F Fiction Workshop

ENG 303F Poetry Workshop

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 Chamber Orchestra

MUS 401F The University Chorale

MUS 402F University Concert Band

MUS 405F The Chamber Singers

MUS 408F Wind Ensemble

THE 102F Acting: Performance

THE 103F Contemporary Dance I

THE 134F Production Management

THE 135F/

136F Stagecraft I & Lab

THE 170F Public Speaking

THE 203F Contemporary Dance II

THE 270F Oral Interpretation

History-centered arts

ART 101G Approaches to Art

ARH 111G Art History: Prehistoric to Medieval

ARH 112G Art History: Renaissance to Modern

ARH 210G Art History: Cross-Cultural Perspectives

ARH 211G Gender Identity and Modern Art

COR 118G New Directions in the Arts and Music

MUS 100G Music Appreciation and History

MUS 102G Music of the Portland Symphony

MUS 103G Introduction to Jazz

MUS	120G	History of Music I	COR	122I	Introduction to Islamic Civilization
MUS	121G	History of Music II	COR	129I	Plato's Myth of the Cave: The Problem of Knowledge
MUS	202G	Music in America	COR	130I	Encounters: Conquest and Colonization in the New World
MUS	203G	Music in the 20th Century	FRE	102I	Beginning French II
MUS	205G	Chamber Music Literature	FRE	107I	Intensive Beginning French
MUS	220G	History of Music III	FRE	201I	Intermediate French I
MUS	221G	History of Music IV	FRE	202I	Intermediate French II
THE	101G	Introduction to Drama	FRE	207I	Intensive Intermediate French
THE	231G	Costuming I	FRE	291I	French Civilization: An Historical Approach (in English)
THE	353G	Dramatic Literature and Theatre History III	FRE	292I	French Civilization: Contemporary France (in English)
<i>Humanities</i>					
<i>Literature</i>					
CLA	283H	The Epic Hero in Ancient Literature	GEO	201I	Cultural Geography
CLA	284H	The Tragic Hero in Ancient Literature	GER	102I	Beginning German II
ENG	120H	Introduction to Literature	GER	107I	Intensive Beginning German
COR	113H	Metaphor and Myth in Science and Literature	GER	201I	Intermediate German I
COR	115H	Modern Ireland in History and Literature	GER	202I	Intermediate German II
COR	123H	Life and Literature after Darwin	HTY	101I	Western Civilization I
COR	129H	Plato's Myth of the Cave: The Problem of Knowledge	HTY	102I	Western Civilization II
FRE	251H	Readings in French Literature	HTY	131I	U.S. History to 1877
FRE	281H	Masterpieces of French Literature (in English translation)	HTY	132I	U.S. History Since 1877
FRE	283H	Contemporary French Thinkers (in English translation)	HTY	152I	The Islamic Near East
FRE	362H	French Poetry	HTY	161I	Introduction to African History to Partition
FRE	363H	The French Theatre	HTY	162I	Introduction to African History Since Partition
GER	281H	The German Novelle (in English translation)	HTY	171I	Traditional East Asia
GER	351H	Introduction to German Literature I	HTY	172I	Modern East Asia
GER	352H	Introduction to German Literature II	HTY	181I	Latin America I
SPA	281H	Masterpieces of Spanish American and Brazilian Literature (in English translation)	HTY	182I	Latin America II
SPA	351H	Introduction to Hispanic Literature I	ITA	201I	Intermediate Italian I
SPA	352H	Introduction to Hispanic Literature II	ITA	202I	Intermediate Italian II
RUS	281H	Russian Literature in Translation	LIN	111I	Bilingualism
THE	150H	Play Analysis	LIN	113J	Origins of Language
<i>Other Times/Other Cultures</i>					
ANT	202I	Origins of Civilization	LIN	202I	Languages of the World
ANT	220I	North American Indians	PHI	310I	History of Ancient Philosophy
ANT	222I	Peoples of the North	PHI	315I	Eastern Philosophy
ANT	230I	Hunters and Gatherers	PHI	320I	History of Medieval Philosophy
ANT	232I	The Anthropology of Sex and Gender	PHI	330I	History of Early Modern Philosophy
ANT	301I	Victims of Progress: Indigenous Peoples in the Modern World	PHI	340I	History of Late Modern Philosophy
ANT	303I	Food and Nutrition: An Anthropological Perspective	PHI	350I	American Philosophy
CLA	285I	Classical Mythology	PHI	360I	Existentialism
CLA	291I	The Golden Age of Greece	RUS	201I	Intermediate Russian I
CLA	292I	Rome, from Republic to Empire	RUS	202I	Intermediate Russian II
COR	115I	Modern Ireland in History and Literature	RUS	291I	Russian and Soviet Culture and Civilization
COR	120I	AIDS in America: Thinking Beyond the Apocalypse	SPA	102I	Beginning Spanish II
			SPA	107I	Intensive Beginning Spanish
			SPA	201I	Intermediate Spanish I
			SPA	202I	Intermediate Spanish II
			SPA	207I	Intensive Intermediate Spanish
			<i>Social Sciences</i>		
			ANT	101J	Anthropology: The Cultural View
			ANT	201J	Human Origins
			COM	102J	Introduction to Communications
			COR	110J	Old and in the Way?: Aging in America
			COR	117J	Learning and the Brain
			COR	124J	Poverty in the United States of America

COR	126J	Global Enlightenment
COR	127J	The Documentary: Its Social, Political and Emotional Impact
COR	128J	The Environment: Science and Politics in the Nineties
COR	130J	Encounters: Conquest and Colonization in the New World
COR	13U	Creating and Making Products
CRM	215J	Criminology
ECO	201J	Principles of Macroeconomics
ECO	202J	Principles of Microeconomics
GEO	101J	Principles of Geography
GEO	120J	Geography of Maine
GEO	303J	Economic Geography
HRD	333J	Human Growth and Development
LIN	20U	Child Language
LIN	185J	Introduction to Language
MOS	325J	Management of State and Local Government
POS	10U	Introduction to American Government
POS	102J	People and Politics
POS	104J	Introduction to International Relations
PSY	10U	General Psychology I
SOC	100J	Introduction to Sociology
SOC	215J	Criminology
SWO	10U	Introduction to Social Welfare

## Natural Sciences

ANT	102K	Biological Anthropology (with ANT 102 Lab)
AST	100K	Astronomy
AST	103K	Astronomy: Activities and Experiments
BIO	100K	Biological Basis of Human Activity
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	Laboratory Biology I
CHY	101K	Introduction to Chemistry
CHY	102K	Introduction to Laboratory Measurement
CHY	110K	Chemistry, Life, and the Environment
GEO	102K	Physical Geography
GEY	111K	Physical Geology
GEY	112K	Physical Geology Lab
OCE	100K	Introduction to Oceanography
OCE	101K	Oceanographic Laboratory
PHY	101K	Introduction to Physics
PHY	102K	Introduction to Physics Laboratory
PHY	111K	Elements of Physics I
PHY	121K	General Physics I
PHY	122K	General Physics Laboratory I

\*Prerequisites for all COR courses: English Composition and Skills of Analysis/Philosophy

### COR 110J Old and in the Way?: Aging in America

Aging is a process that is common to all of us, yet many misconceptions and debates exist regarding growing old in American society. This course introduces students to the study of aging, its utility and ubiquity. We will examine the ways in which three different disciplines—biology, sociology, and the developmental view—conceptualize and discuss issues and questions about aging. Cr 3.

### COR 113H Metaphor and Myth in Science and Literature

A comparative study of science and literature, focusing on their aims, methods, and values, and on the nature of truth and creativity in each discipline. Readings in fiction, poetry, and modern physical and biological science will provide a basis for discussion of the metaphoric and mythic nature of scientific and literary discourse. Our goal is to demonstrate that both science and literature are useful, full of insight, and wondrous. This team-taught course will consist primarily of readings, small-group discussions, and position papers. No college science background is required. Cr 3.

### COR 115H/I Modern Ireland in History and Literature

An introduction, through history and literature, to the evolution of modern Ireland, from the Great Famine of the mid-19th century to the troubles in the North today. Cr 3.

### COR 117J Learning and the Brain

Behavior studies and brain studies have coexisted separately for many years. Though behavior reflects neurological activity, no one was certain which brain areas were involved in which behaviors. Now technological advances enable us to study activity in the normally functioning brain. In this course, which assumes no background in science, we will explore anatomy, physiology, and chemistry of the brain in an effort to develop an understanding of how the brain influences what and how we learn. Issues to be discussed include brain development, learning, and learning disabilities, mental disease, language, reading, spelling, attention, emotion, perception, and memory. Cr 3.

### COR 118G New Directions in the Arts and Music

Focuses on art and music from ca. 1920 to the present. Topically arranged classes relate contemporary culture to new developments in the arts such as electronics, computers, and multi-media productions. Students will also acquire a vocabulary for interpreting art and music. Cr 3.

### 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 120I AIDS in America: Thinking Beyond the Apocalypse**

The aim of this course is to explore the phenomenon of AIDS in American culture. In order to think beyond the apocalypse, we can view our culture's response to AIDS as a paradigm for living in the twentieth century; no phenomenon, no matter how unprecedented it may seem, occurs in a vacuum. Responses to AIDS take shape within and will influence a range of interlocking cultural structures: medicine, law, politics, ethics, the aesthetic, psychology, and economics. Our objective will be to address these issues as they create the phenomenon of AIDS in America, and to enable students to think beyond apocalyptic sensationalism. 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 socio-political 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 123H Life and Literature after Darwin**

A study of biological evolution and its reflections in literature. Readings on Darwin's theory of evolution in its original and modern forms, followed by the 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.

### **COR 124J Poverty in the United States of America**

This course will examine social, economic, and historical dimensions of poverty. It will introduce students to concepts and ideas from various disciplines to promote their understanding about this controversial and widely misunderstood topic. We take it as axiomatic that poverty must be understood in the broader contexts of inequalities of class, status, power, ethnicity, gender, and race which typify advanced capitalist societies. Far from being restricted to a small minority, poverty affects a large segment of the population. Cr 3.

### **COR 126J Global Enlightenment**

This course is designed to familiarize students with the major problems confronting civilization as we approach the 21st century. Emphasis will be placed upon a variety of critical global issues dealing with such themes as energy/power generation, housing, pollution, waste disposal, effective resource utilization, transportation, communications, food produc-

tion, water, ecological/environmental problems, world population, cultural co-existence, education, and technological literacy. Solutions to such problems will be analyzed and discussed and the importance of interdependence among nations will be stressed throughout the course. Cr 3.

### **COR 127J The Documentary: Its Social, Political and Emotional Impact**

Documentary films have had and continue to have a strong effect on individuals and society. A major goal of this survey is an understanding of the documentary process and an appreciation of the media (news, shorts, features) in which this form is used. Before the end of the semester, students will achieve the ability to analyze the form, structure, style, content, and impact of documentaries. Cr 3.

### **COR 128J The Environment: Science and Politics in the Nineties**

This course will focus on the principles that relate to energy use, resource use, and waste management. The points of view utilized will be political and economic, biological, and mathematical (deductive). Students are expected to be active participants in this interdisciplinary course. Cr 3.

### **COR 129H/I Plato's Myth of the Cave: The Problem of Knowledge**

This course explores multiple interpretations of Plato's myth and what it tells us about knowledge and learning. The myth is used as a springboard into the historical context of ancient Athens and what various disciplines can tell us about that culture. The myth is also examined from contemporary perspectives. The course relies heavily on primary works of the period (Plato, Aristophanes, Homer, Sophocles, Sappho, Thucydides). Cr 3.

### **COR 130I/J Encounters: Conquest and Colonization in the New World**

1992 marks the 500th anniversary of Columbus's voyage to a world new to his fellow Europeans. It is not an exaggeration to say that his voyages ushered in the swiftest and greatest change to ever occur in the human condition; the world's current problems—social, economic, political, and environmental—are directly related (for better or worse) to the legacy of conquest and colonization that followed. This course will explore the factors surrounding European contact with the Americas from an historical, archaeological, and ethnographic perspective; students will develop the scholarly and analytical tools with which to inform their own response to the controversies heightened in this quinquennial year. Cr 3.

### **COR 131J Creating and Making Products**

We will trace a product from its conception to its purchase by consumers. Invention is discussed as a combination of preparation, inspiration, and work, followed by design, building, and testing of prototypes. A single working model does not a marketable product make. Market analysis, engineering design, manufacturing, plant construction, and environmental concerns are studied, as are ethical, aesthetic, and legal considerations. The course includes case studies, readings, and projects. Cr 3.

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# UNIVERSITY HONORS PROGRAM

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*Director:* Jeremiah P. Conway, Honors House, 102 Bedford Street, Portland

*Honors Faculty:* Ashley (English), Caffentzis (Philosophy), Callender (Education), Downey (Interdisciplinary Studies), Gavin (Philosophy), Hinckley (Foreign Languages and Classics), McGrath (English), Shilton (Interdisciplinary Studies)

*Honors Council:* Carper (English), Clarey (SBEM), Cluchey (Law), Guvench (Engineering), Kimball (Education), Kingsland (Sociology), Ricci (Chemistry), Thompson (Nursing)

The Honors Program provides an enriched undergraduate education to a selected group of students who are outstanding in their ability, curiosity, creativity, and motivation. Approximately 30 students are admitted to the Honors Program each year. Students entering the fall semester of their freshman or sophomore year, whether full-time or part-time and regardless of intended major, are eligible to apply. Students selected for the program work closely with faculty in a series of small seminar-type courses specially designed for Honors Program students. These courses integrate knowledge from various disciplines and examine more fully than is possible in the general curriculum the ways of knowing, Western culture, and the contemporary situation. Later, Honors Program students take an advanced seminar and do a major independent research project under the direction of a faculty member in their department. All Honors Program work stresses independent learning, original thinking, and the development of skills in research, writing, and oral expression.

The Honors Program is more than a series of courses. Students in the Honors Program are part of a special social and intellectual community that extends beyond the classroom. This community has its physical location at Honors House, 102 Bedford Street, on the Portland campus. Honors House contains a seminar room, a lounge and reading room for the use of Honors Program students and faculty, and the program's faculty and administrative offices. Students come to Honors House to attend classes, to study, to meet with professors, and to socialize. In addition, speakers, seminars, discussion groups, artistic presentations, and social events are scheduled regularly at Honors House.

Honors Program work is rewarding and beneficial for all high-achieving students regardless of their academic interests or career goals. Honors Program courses provide a core of general knowledge and a sensitivity to important contemporary issues. The skills acquired through Honors study are applicable in any setting. In upper-level courses, Honors students may pursue in depth their particular interests. Honors Program work provides a superb background for further study and will assist students in gaining admission to graduate or professional school. Honors work is also excellent preparation for any career requiring demonstrated achievement and discipline.

## ***Honors Program Requirements***

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

HON	100	Writing in Honors (Optional)	(3 credits)
HON	101	Honors Colloquium IA	(4 credits)
HON	102	Honors Colloquium IB	(4 credits)
HON	201	Honors Colloquium IIA	(4 credits)
HON	202	Honors Colloquium IIB	(4 credits)
HON	301	Honors Seminar	(3 credits)
HON	311	Thesis I (Workshop)	(3 credits)
HON	312	Thesis II	(3 credits)

Honors students may also choose from the following elective Honors courses:

HON	321	Honors Directed Research	(3 credits)
HON	331	Honors Directed Study	(3 credits)

Courses taken in the Honors Program may not be taken on a pass-fail basis.

## ***Core Curriculum Requirements***

Successful completion of the Honors Colloquia (HON 101, HON 102, HON 201, and HON 202) will satisfy the following Core curriculum requirements: Core Interdisciplinary, Skills of Analysis/Philosophy, History-centered Fine Arts, Humanities Literature and Other Times/Other Cultures. 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.

## **Departmental Major Requirements**

Required and elective upper-level Honors courses (HON 301, HON 311, HON 312, HON 321, and HON 331) may be counted toward the number of credits departments require for graduation as a major. Students enrolled in the Honors Program should consult with the director concerning the use of Honors Program courses to satisfy departmental major requirements.

## **Admission to the Honors Program**

**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. Admission to the Honors Program is based primarily on criteria designed to identify such students. The applicant's entire record is reviewed. Many factors are considered: the applicant's overall academic record; SAT and other test scores; extracurricular activities; recommendations; work experience; application essay; and an interview with the Honors director. The Honors Program seeks a diverse group of students to provide a stimulating environment for all participants.

**Application Procedures and Deadlines.** Application to the Honors Program is separate from and in addition to application to the University. Students interested in applying for admission to the Honors Program should write or call University Honors Program, University of Southern Maine, Honors House, 102 Bedford Street, Portland, Maine 04103, (207) 780-4330, for an Honors Application Form. To be considered for September, a completed application should be received at Honors House by June 1. Later applications will be considered if there is space available in the program. As soon as a completed application is received, the applicant will be contacted to schedule an interview with the Honors director. Applicants are notified of admissions decisions as soon as they are made or by August 1. Early application is advised.

## **Retention in the Honors Program**

To remain in good standing in the Honors Program, a student must successfully complete all Honors courses taken and also maintain an overall 3.0 grade point average during his or her first two years at USM and a 3.25 grade point average during his or her last two years. Before a student is dropped from the Honors Program for failure to maintain the required grade point average, he or she will have one probationary semester in which to regain the required grade point average.

## **Graduating with General University Honors**

Honors students who successfully complete all required Honors courses (HON 101, HON 102, HON 201, HON 202, HON 301, HON 311, and HON 312) and have attained a 3.25 grade point average in all University work including Honors courses, will graduate with General University Honors. The Honors Council may award the designations High General University Honors and Highest General University Honors to those Honors students who have specially distinguished themselves in Honors coursework. 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.

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### **HON 100 Writing in Honors**

This course has been established in close conjunction with the program's first course, The Ancient World (HON 101). Each aspect of the writing curriculum has been integrated with its counterpart in HON 101. The course aims not only at learning to write, but at the discovery of the importance of writing to learn. (Optional) Cr 3.

### **HON 101 Honors Colloquium IA: The Ancient World**

Understanding an event requires an exploration of origins, of how, when, and why something happened. To understand the events of modern western civilization we turn to the ancient world in search of origins. Specifically, this course examines the ways in which Greek, Judaic, Christian, and Roman cultures structured their worlds.

Central to this course and these cultures are the founding stories that tell students who they are, stories from Homer, *Genesis*, Matthew, and Virgil. The founding story we moderns tell is the story of the ancient world. What this story may mean to us personally and collectively is a central question of this course. Cr 4.

### **HON 102 Honors Colloquium IB: The Medieval World**

This course examines not one, but many, worlds between 200 and 1500 A.D.—a period usually called The Middle Ages. Geographically, events take place in North Africa, the Near East, Italy, Spain, Germany, France, and England. The texts to be read are similarly diverse. They include not only written works, but also the visual arts and music, city architecture, and rituals. As we discuss this wide range of materials, we will not attempt to discover one unifying “medieval world view”; rather we will pose recurring questions, chief among them, how medieval people gave meaning to their lives and interpreted the world around them. Cr 4.

### **HON 201 Honors Colloquium IIA: Renaissance, Reformation, and Enlightenment**

This course will confront the student with original texts, typical experiences and the material context of the Great Transformation from feudal Christendom to the dawn of the Industrial Revolution. The core of the course will be the reading and discussion of some of the great literary, religious, and scientific texts of the period, for example, Bacon's *New*

*Atlantis*, Shakespeare's *The Tempest*, Kepler's *Harmonies of the World*, and Harriot's *A brief and the true report of the newfoundland of Virginia*, in an attempt to show the interrelationship of scientific, social, and literary production of the period. Other voices will be heard, from native American views of the Europeans, to African slave narratives, to testimonies of witches on trial, to the ranks of those who wished to "turn the world upside down" in the English Civil War. Out of this montage of thoughts, experiences, and words characteristic of the Great Transformation, the student should be better able to understand and judge the value of the modern world society this Transformation resulted in. Cr 4.

### **HON 202 Honors Colloquium IIB: The Modern Age**

The Modern Age begins with *The Trial* by Franz Kafka. Kafka's text raises the difficult issues of whether "progress" can be made in modernity, or whether all is just "process." The course deals with a series of texts and authors who believe that they clearly know what the "problematic" is, and how to go about solving it. These authors include Marx, Nietzsche, Freud, Woolf, and Beauvoir. All these are studied in comparison with Kafka's text, with a view to ascertain whether Kafka can be reduced to any one of these interpretations.

In the second half of the course, a switch is made from the European to the American context. The focal text for this section is William Carlos Williams' poem, "Patterson." A third, non-Western context, the Russian, is looked at through the work of Dostoevsky. An ongoing comparison of the three contexts, European, American, and Russian permeates the semester.

The Modern Age ends with a text by Samuel Beckett, *Waiting for Godot*. In so doing, it returns to the opening question of Kafka's *The Trial*, namely, can any form of "progress" be made? Cr 4.

### **HON 301 Honors Seminar**

In this seminar students undertake the critical examination of a topic or problem of contemporary relevance and write a paper based on independent research. Cr 3.

### **HON 311 Thesis I (Workshop)**

This course involves the planning and preliminary research of an independent thesis. It consists of a mandatory thesis workshop. Students will meet as a group to review advanced research methods, exchange preliminary proposals, and begin the process of developing a final product. As the course progresses, students will meet individually with their faculty mentors. Cr 3.

### **HON 312 Thesis II**

This course is a continuation of the Thesis project. Cr 3.

### **HON 321 Honors Directed Research**

This optional course allows an Honors student with a particular research interest to write a research paper under the direction of a faculty member who is willing to supervise the project. Approval of the director is required. Cr 3.

### **HON 331 Honors Directed Study**

This optional Honors course allows an Honors student with an interest in a particular area to design a course of reading in collaboration with a faculty member who is willing to tutor the student. This course affords an Honors student an additional opportunity to pursue his or her individual interests. Approval of the director is required. Cr 3.



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## WOMEN'S STUDIES PROGRAM

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*Director:* Diana E. Long, 94 Bedford St., Portland

*Women's Studies Council:* Cameron, Cole, Crader, Eagan, Franklin, Gilmore, Gish, Goldstein, Holden, Kingsland, Kissen, Lockridge, MacPherson, Messerschmidt, Murphy, Padula, Thompson, Tizon, Wininger, Woshinsky

Women's studies offers students the opportunity to study the lives, words, ideas, and cultural contributions of women as well as feminist theoretical approaches to interdisciplinary studies. Women's studies courses focus both on recovering women's lost or neglected pasts and on analyzing and re-thinking contemporary societies. Subject matter may include, for example, the philosophy of Simone de Beauvoir, the politics of Angela Davis, or the construction of race and gender in contemporary films. Courses also focus on such issues as gender construction of science, the effect of gender-biased language, inequities in work and pay, or the psycho-social development of women. 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's Studies program introduces students to new ways of thinking about such topics as technology, gender, and oppression. The program offers a major leading to a bachelor of arts degree through the Self-Designed Major Program in the College of Arts and Sciences. Students may also minor in women's studies.

Women's studies includes both a core curriculum offered by the program and electives offered within departments, such as Feminist Philosophy, Sociology of Gender, or Anthropology of Sex and Gender. Courses offered by the program are interdisciplinary and focus on the major texts, ideas, theories, and methods common to women's studies. Department courses examine the role of women and women's ideas in specific disciplines. In addition to a broad, integrated vision of society and culture, women's studies students develop skills in analysis, critical thought, writing, and practical application of theoretical understanding.

Graduates with a self-designed major in women's 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.

*The women's studies major is offered through the College of Arts and Sciences Self-Designed Major. Please see Interdepartmental Major Programs section.*

### **Programs and Requirements**

#### ***Self-Designed Major in Women's Studies***

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

The women's studies self-designed major consists of a minimum of 21 hours of required courses and 21 hours of women's studies elective or related courses.

Required Courses (select at least 21 hours)

#### **All of the following:**

WST	130	Introduction to Women's Studies
WST	260	Introduction to Feminist Theories
WST	330	Sex, Gender, and Inquiry
WST	440	Internship
HTY	364	History of Women in The United States

#### **One of the following:**

ANT	232I	Anthropology of Sex and Gender
SOC	316	Sociology of Gender

#### **One of the following:**

WST	360	Advanced Feminist Readings
PHI	265	Feminist Philosophy

Women's Studies Elective and Related Courses (select at least 21 hours)

WST	220	Topics in Women's Studies
WST	230	Psycho-Social Development of Women
WST	320	Advanced Topics in Women's Studies

WST	350	Feminist Ethics
WST	450	Independent Study
ARH	218	Women in Art
BUS	349	Women and Management
COM	484	Women in Film
ECO	322	Economics of Gender and Discrimination
ENG	379	Earlier Women Writers
ENG	387	Contemporary Women Writers
HTY	339	European Women's History
POS	201	Women and Politics
PSY	235	Psychology of Women
SOC/CRM	317	Gender and Crime

### *Minor in Women's Studies*

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

The women's studies self-designed minor consists of a minimum of 18 hours of required courses and 3 hours of women's studies elective or related courses.

Required Courses (Select at least 18 hours)

#### **All of the following:**

WST	130	Introduction to Women's Studies
WST	260	Introduction to Feminist Theories
WST	330	Sex, Gender, and Inquiry

#### **One of the following:**

HTY	339	European Women's History
HTY	364	History of Women in the United States

#### **One of the following:**

ANT	232I	Anthropology of Sex and Gender
SOC	316	Sociology of Gender

#### **One of the following:**

WST	360	Advanced Feminist Readings
PHI	265	Feminist Philosophy

Women's Studies Elective and Related Courses (Select at least 3 hours)

WST	220	Topics in Women's Studies
WST	230	Psycho-social Development of Women
WST	320	Advanced Topics in Women's Studies
WST	350	Feminist Ethics
WST	450	Independent Study
ARH	218	Women in Art
BUS	349	Women and Management
COM	484	Women in Film
ECO	322	Economics of Gender and Discrimination
ENG	379	Earlier Women Writers
ENG	387	Contemporary Women Writers
POS	201	Women and Politics
PSY	235	Psychology of Women
SOC/CRM	317	Gender and Crime

### *Major Credit and Grade Policy*

There are prerequisites for many of the women's studies courses. See departmental course listings for specific information. Certain courses may require the instructor's or director's permission. Others will accept permission of the instructor in lieu of the prerequisite. In some cases, waivers or equivalents for required courses will be accepted. No grade of D will count toward fulfillment of the women's studies self-designed major. Courses taken pass/fail are not acceptable.

### *Curriculum Summary and Guide*

The curriculum core in women's studies is structured to offer introductory, intermediate, and advanced level courses providing comprehensive knowledge of the history, theories, research, methodology, and applica-

tions of women's studies. The first-year student is encouraged to complete Core curriculum requirements. In the second year, students should take Introduction to Women's Studies (an interdisciplinary examination of major issues in the field), Feminist Philosophy, or Advanced Feminist Readings, and electives in women's studies. Students who plan to minor in another discipline should also begin the suggested sequence for that year. Third-year courses should include History of Women in the United States and women's studies electives. These courses provide a further grounding in major feminist texts and in the contributions, ideas, and experience of women. Fourth-year courses should include Sex, Gender, and Inquiry, and the Internship in Women's Studies. These courses offer advanced experience in feminist theory, research, and practical application. Students must also complete elective requirements and any minor requirements in their fourth year.

### *Declaration of Major*

Students are encouraged to explore a variety of disciplines and courses before declaring a self-designed major in women's studies. A minimum of 30 hours of Arts and Sciences courses, including at least one women's studies course, should be completed before application is made. Consistent with Interdepartmental Major Board policy, students should declare a major prior to completion of 53 credits and prior to completion of 30 percent of the proposed major.

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### **WST 130 Introduction to Women's Studies**

This course introduces students to the study of women as a diverse social group with a history, culture, and experience of their own; it examines the creative, intellectual, and social contributions of women as well as their roles in society. We will critique the suppression and denial of women's thoughts and actions and consider ideas for transforming social structures. Our objective is to understand women in society from an historical and cultural perspective. Readings will include interdisciplinary background studies as well as contemporary women's writings such as Sonia Johnson's experience with traditional religion, Alice Walker's short story about quilting, and Adrienne Rich's analysis of heterosexuality as a compulsory institution.

Cr 3.

### **WST 220 Topics in Women's Studies**

Each semester topic areas not already covered by regular course offerings in women's studies will be offered. The course may be repeated for credit when different topics are considered.

Cr 3.

### **WST 230 Psycho-social Development of Women**

This course is designed to introduce, investigate, and critique traditional developmental theory as well as the current research which seeks to expand the basic knowledge of women's development and the ways in which women learn. Emphasis will be placed on the study of psychological, cognitive, moral, and sociological development of women from conception through the life span. The interaction of biological and environmental factors will be considered as new theories and research related to women's development over the life span are explored. Prerequisite: WST 130 or permission of the instructor.

Cr 3.

### **WST 260 Introduction to Feminist Theories**

What are feminist theories? How do they differ from other forms of theorizing? What roles do feminist theories play within academic disciplines, and what are their roles in the ongoing feminist work for social change? Feminist theories comprise a vital and available critique that offers a number of ways to

work toward transforming the structures of oppression. In this course we will examine how oppression and power are linked to gender, race, and class. The aim of this course is to familiarize students with the historical, political, and intellectual traditions of feminist theories; to study their representative texts; and to explore key issues such as sexuality, work, and race within that context. Because feminist theory is itself a dynamic and expanding practice, students will explore the interactions among, as well as distinctions between, feminist theories. Prerequisite: a women's studies course or permission of instructor.

Cr 3.

### **WST 320 Advanced Topics in Women's Studies**

Each semester advanced topic areas not already covered by regular course offerings in women's studies will be offered. The course may be repeated for credit when different topics are considered.

Cr 3.

### **WST 330 Sex, Gender, and Inquiry**

This seminar will explore the connections between feminist theories and the construction of women's experience, including the management of reproduction in our culture, and violence against women. Intended to be taken prior to or concomitantly with the internship required of all majors in women's studies, the other issues covered during the semester will be related to those internships. Open to non-majors with permission of the instructor. Especially useful to students linking their disciplinary work with feminism.

Cr 3.

### **WST 350 Feminist Ethics**

This course is an introduction to feminist ethics. The first part of the course explores some of the diverse approaches to feminist ethics, examines both the distinctiveness of each approach and similarities among them, and investigates why such diversity exists and to what extent it is necessary. The second part of the course explores specific issues and areas of ethical reflection, such as power, sexuality, dualism, non-violence, and means of social change. Prerequisite: WST 130 or permission of the instructor.

Cr 3.

**WST 360 Advanced Feminist Readings**

Advanced Feminist Readings is an in-depth study of selected great books by women. Although it is not a summary and cannot be inclusive, it draws on texts from the 16th to the 20th century and represents many strands of feminist thought. Diverse texts will be linked by a specific theme such as the centrality of language to the definitions and creative potential of women or the development of a women's tradition. Readings include Wollstonecraft, deBeauvoir, Friedan, Woolf, Daly, Rich, and others. Cr 3.

**WST 440 Internship**

This course is designed to provide an opportunity for students to relate feminist theory and philosophy to practice. The links between community and campus, social action and research will be emphasized through

experiential learning. Requirements include 120-240 hours of work in a community or government agency or private organization, in addition to meeting with other interns in seminars and scheduled meetings with a supervisor. Prerequisite: self-designed major in women's studies, senior standing, and permission of the director. Cr 3-6.

**WST 450 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. Prerequisite: advanced standing and permission of the director. Cr 3.

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# COLLEGE OF ARTS AND SCIENCES

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*Dean:* Richard G. Stebbins; *Associate Dean:* Julien Murphy; *Director of Student Academic Affairs:* Margaret A. Fahey; *Coordinator of Scheduling:* Maurice J. Chabot

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***

The College of Arts and Sciences is composed of the following departments:

Art	Mathematics and Statistics
Biological Sciences	Music
Chemistry	Philosophy
Communication	Physics
English	Political Science
Foreign Languages and Classics	Psychology
Geography-Anthropology	Social Work
Geosciences	Sociology and Criminology
History	Theatre

## ***Baccalaureate Degree Programs***

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 in applied chemistry (B.S.) is offered by the Department of Chemistry; and bachelor of music in performance (B.M.) and bachelor of music in music education (B.M.) is offered by the Music Department.

Art	Mathematics
Biology	Music
Chemistry	Philosophy
Communication	Physics
Criminology	Political Science
English	Psychology
French	Self-Designed
Geography-Anthropology	Social Science
Geology	Sociology
History	Social Work
	Theatre

## ***Requirements for all Baccalaureate Degree Candidates***

To be eligible for a baccalaureate degree from the University, a student must meet the following:

- I. minimum proficiency requirements
- II. Core curriculum requirements
- III. departmental or program requirements
- IV. minimum of 120 credits of accepted courses
- V. minimum of 2.0 cumulative grade point average

### ***Minimum Proficiency Requirements***

Every baccalaureate degree student who is admitted to the University must produce evidence (no credit granted) of both a minimum writing proficiency and a minimum mathematics proficiency. These requirements are described in the Academic Policies section of this catalog.

### ***Core Curriculum Requirements***

Every baccalaureate degree student who is admitted to the University is required to meet the Core curriculum requirements. 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. Students normally declare a major program prior to completing 53 credits. Students who wish to declare a major must obtain a Declaration of Major form from the Dean's Office.

Fine arts students, especially in the Departments of Art and 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. Undecided students are encouraged to consult the Advising and Career Services Center as well as those departments that interest them prior to declaring a major.

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.

### ***Associate of Arts Degree Program in Liberal Arts (60 credits)***

The College of Arts and Sciences offers a two-year degree program leading to the associate of arts (A.A.) degree in liberal arts. This program is also offered off-campus in conjunction with the Division of Off-Campus Instruction and Academic Support. Graduates of this program may transfer into a baccalaureate degree program.

To be eligible for the associate of arts degree in liberal arts from the University, a student must meet the following:

- I. minimum proficiency requirements
- II. Core curriculum requirements
- III. electives from the College of Arts and Sciences. The degree candidate may take up to two courses at the 100 level or above outside the College of Arts and Sciences. Taking additional courses in this category requires permission of the Dean.

A list of courses approved for satisfying the requirements of the Core curriculum may be found in the section on the Core.

Students who wish to transfer into a baccalaureate degree program should ensure that their electives are from courses carrying a number of 100 or higher. They may also wish to consult the major requirements of baccalaureate programs in which they are interested.

### ***Other Educational Opportunities***

#### ***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***

Minors are available in the following departments: art history, biology, chemistry, communication, criminology, English, foreign language, geography/anthropology, geology, history, mathematics, music, physics, political science, and sociology.

#### ***School of Business Minor***

The School of Business, Economics and Management 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, Economics and Management section of this catalog.

#### ***Graduate Programs in the College of Arts and Sciences***

The College of Arts and Sciences offers two programs leading to the master's degree. These are the master of arts in New England Studies and the master of science in statistics. Consult the University's graduate catalog for further information.

#### ***College of Arts and Sciences Courses***

The College also offers courses on a variety of topics and themes which are not sponsored by individual departments. The courses currently offered are the following.

### **ARS 122 Career Development**

This course is designed for upper-level students to investigate the world of work in terms of their own personal-professional goals. Emphasis is placed upon the career-planning process in relation to current opportunities. Activities will assist students to formulate and clarify realistic job objectives as well as plan appropriate strategies to achieve employment. Experiences will include inventory-awareness exercises, career exploration with field visitations, and preparation with résumé construction and interviewing procedures.

Cr 1.

### **ARS 123 Topics of Human Sexuality**

The purpose of this course is to provide individuals with a thorough understanding and accurate information concerning their sexuality. The course will show the subtle complex interrelationship among sociology, biology, philosophy, psychology, theology, behavior, and interpersonal relationships as they pertain to sexuality. Topics to be discussed include sex-

ual growth and development. sexual attitudes, sexual anatomy and physiology of males and females, human sexual response cycle, sexual attraction, love and relationships, contraception, homosexuality and bisexuality, alternative forms of sexual behavior, sexual fantasies, sexual dysfunctions and problems, sexual history and research.

Cr 3.

### **ARS 223 Attitudes: Human Sexuality**

The purpose of this course is to allow individuals to better understand their sexual feelings, attitudes, and relationships. Emphasis will be placed on developing skills necessary in dealing with one's own sexuality, as well as the sexuality of others. Topic areas will include sexual communication skills, body images and sensory awareness, values clarification, male and female sexual identity, sexual assertiveness, overcoming sexual dysfunctions, sexual lifestyles, understanding sexual deviancy, sexual scripting. The course will rely heavily on lecture, group process, and role playing.

Cr 3.

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## **Interdepartmental Major Programs**

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*Self-Designed Major Committee:* Professors Bjelic, Coakley, Cowart, Hinckley, Jacques

Students may enroll in interdepartmental major programs that lead to a bachelor of arts degree in a self-designed major. The self-designed major 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 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 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. 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:

Biotechnology	Hispanic Studies
Classical Studies	International Studies
Foreign Languages	Linguistics
French Studies	Russian Studies
German Studies	Social Science
	Women's Studies

## BIOTECHNOLOGY

*Coordinator:* Thomas J. Knight, 408 Science Building, Portland

*Steering Committee:* Gainey, Holmes, Knight, Ng, Rhodes, Ricci, Smith

The biotechnology self-designed major is an interdisciplinary degree program designed to provide students with a liberal arts education emphasizing cellular and molecular biology. An integral part of this program is a semester-long, full-time internship at one of several local biotechnology firms.

Students may apply for admission to the program at the end of their freshman year (after completion of one year of chemistry and one year of biology coursework). The committee will recommend the most qualified students for admission to the program. Minimum requirements are a "B" average in all coursework required for the program. The number of students admitted to the program will be determined by the committee; however, students will not be admitted unless there is a reasonable expectation of their being placed in an internship.

Students will be required to maintain a 2.5 GPA in required coursework to remain in the program. Students who do not maintain this average will be placed on probation for one semester; if no improvement is noted, they will be dismissed from the program. Required coursework with a grade of "D" will not be counted toward fulfilling the program requirement.

Complete details and guidelines may be obtained from the program coordinator.

### ***Program and Requirements***

The minimum number of credits (exclusive of the University's Core curriculum) required for the self-designed major in biotechnology: 76.5 or 77.5.

Biology (21.5 credit hours)

2 semesters Freshman Biology (BIO 105K, 106K, 107, 108)

Genetics (BIO 301)

Microbiology (BIO 311, 312)

Cell and Molecular Biology (BIO 409, 410)

Chemistry (32 credit hours)

2 semesters Freshman Chemistry (CHY 113, 114, 115, 116)

2 semesters Organic Chemistry (CHY 251, 252, 253, 254)

Analytical Chemistry (CHY 231, 232)

Biochemistry (CHY 361, 362)

Internship (12 credit hours)

Physics (9 or 10 credit hours)

2 semesters Introductory Physics (PHY 121K, 122K, 123, 124 or PHY 111K, 112)

Mathematics (8 credit hours)

1 semester Calculus (MAT 152D)

1 semester Statistics (MAT 220)

## CLASSICAL STUDIES (Concentration in either Greek or Latin)

*Coordinator:* Gloria Duclos, 55 Exeter Street, Portland

The minimum number of credits (exclusive of the University's Core curriculum) for the self-designed major in Classical studies: 36.

For the concentration in Latin, the student takes three upper level (above 100) courses in Latin and two upper level courses in Greek; for the concentration in Greek, the student takes three upper level courses in Greek and two upper level courses in Latin.

In addition, the student takes the following courses in ancient civilization and literature in translation:

CLA	283H	Epic Hero
CLA	284H	Tragic Hero
CLA	285I	Classical Mythology
CLA	291I	Golden Age of Greece
CLA	292I	Rome, from Republic to Empire

Also, the student chooses two courses from the following electives:

ARH	111G	History of Art I
ARH	212	Classical Art
HTY	303	History of the Ancient Near East and Greece
HTY	304	History of Rome
PHI	310	Ancient Philosophy
POS	289	Political and Social Thought I

## FOREIGN LANGUAGES

*Coordinator:* Mara Ubans, 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.



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:

Spanish: SPA 331\*, 332\*, 351H, 352H, 281H or 270 (\*SPA 301, 302 are prerequisites)

German: GER 321, 322, 351H, 352H, 281H

French: FRE 321, 323, 291I, or 292I; any two of 361, 362H, or 363.

Classical Languages: GRE 251, 252, LAT 251, 252, and either GRE 470 or LAT 470

In addition, the student is required to take two language theory courses, one of which may be replaced by LAT 101 and 102. Total credits required: 36.

## FRENCH STUDIES

*Coordinator:* Lucia di Benedetto, 55 Exeter Street, Portland

The minimum number of credits (exclusive of the University's Core curriculum) required for the self-designed major in French studies: 36.

One language theory course or two semesters of Latin.

French Language and Literature

*Any two*

FRE 321	Workshop in Writing French
FRE 323	Workshop in Speaking French
FRE 305	French Phonetics

*Any two*

FRE 361	The French Novel
FRE 362H	French Poetry
FRE 363H	The French Theatre

One French literature course from the 400 level.

French Civilization and Literature in Translation

FRE 291I	French Civilization: A Historical Approach
FRE 292I	French Civilization: Contemporary France

*Select one*

FRE 283H	Contemporary French Thinkers
FRE 284	Avant-Garde Theatre in France
FRE 285	18th Century Literature in France and England

*Electives (any three)*

LAT 101-102	Beginning Latin
HTY 316	French Revolution and Napoleon
HTY 322	20th Century Europe
POS 235	Democratic Governments of Europe
ARH 316	Modern Art
MUS 203	Music in the 20th Century
SOC 361	Sociology of Franco-Americans

## GERMAN STUDIES

*Coordinator:* Mara Ubans, 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.

One language theory course or two semesters of Latin.

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 320	Europe at the Turn of the Century (1871-1913)
HTY 322	20th-Century Europe
HTY 324	World Wars I and II: European War and Diplomacy
HTY 330	Germany: Bismarck to Hitler
HTY 334	The Holocaust: Policy, Practice, Response
HTY 336	Leaders of the 20th Century: Churchill, Roosevelt, Hitler

Humanities (any two)

CLA 283H	The Epic Hero in Ancient Literature
CLA 284H	The Tragic Hero in Ancient Literature
CLA 285H	Classical Mythology
ENG 341	Contemporary Critical Theories
ENG 316	The Bible

PHI	275	Theories of Language
PHI	340	History of Late Modern Philosophy

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: 36.

### *Required Courses*

#### Spanish Language and Literature

SPA	*301	Practice in Conversation
SPA	302	Practice in Writing
SPA	*331	Advanced Conversation
SPA	332	Advanced Grammar and Stylistics
SPA	351H	Introduction to Hispanic Literature I
SPA	352H	Introduction to Hispanic Literature II
SPA	281H	Masterpieces of Spanish American and Brazilian Literature (in English Translation)

#### History and Culture

SPA	270	The Culture and Civilization of Spain
HTY	181I	History of Latin America I
HTY	182I	History of Latin America II

\*Students who earn advanced placement for 301 and/or 331 must fulfill the requirements for the major with courses from the other areas of the major.

### *Electives (any two)*

HTY	381	Latin America and the United States
HTY	383	The Society and Culture of Latin America
ECO	370	International Economics
GEO	301	Political Geography
ANT	205	Latin American Cultural History

At least two semesters of another Romance language are strongly recommended.

Course substitutions can be made in the electives upon prior approval.

## INTERNATIONAL STUDIES

*International Studies Council:* Albee, Ashley, Crochet, Dietrich, Faksh, Holden, Kulawiecz, Manny, Najarian, Padula, Roberts, Rogoff, Rosenthal, T. Sanders, Tizon

The international studies program is a multidisciplinary curriculum that attempts to reconcile traditional subjects and approaches with emerging needs of the world community. The program is academically rigorous and meets the requirements of international studies at major universities. By offering three possible subfields for concentration, the program is adaptable to the many opportunities available in work related to international affairs. The international studies curriculum leads to a bachelor of arts degree through the self-designed major in the College of Arts and Sciences. The course of study includes:

- I. *Fundamentals:* liberal arts courses that fulfill fundamental requirements for understanding international problems;
- II. *Foreign Language:* three years' university competency in a modern foreign language;
- III. *Concentration:* specialization in one of three subfields of International Studies; and
- IV. *Senior Seminar and Thesis:* a seminar that explores major theoretical approaches in the field and a thesis that focuses on a critical international problem.

Specialization is a unique feature of USM's international studies program because it provides in-depth knowledge of problems that challenge global society. Students in international studies choose a concentration from one of three subject areas:

- A. **FOREIGN POLICY ANALYSIS.** This concentration is directed toward state-centric perspectives on international politics as well as interstate relations. It includes courses on law and organization, history and diplomacy, security and strategy, war and peace. This concentration is appropriate for diplomatic and other governmental work in foreign affairs, and provides the classical preparation for graduate work in international studies and related disciplines.
- B. **INTERNATIONAL AFFAIRS MANAGEMENT.** This concentration emphasizes a functional approach to international affairs. The courses deal with global issues primarily of a non-strategic nature, such as socioeconomic development, industry and commerce, trade, technology, energy and resources, food and nutrition, health, and the environment. This concentration offers a broad preparation for careers in international development and education, business, technology, communications, and social welfare.

C. REGIONAL AFFAIRS. This concentration gives attention to the importance of understanding the history, culture, politics, and language of a particular geographical region. USM offers courses of study in three regions: Europe, Latin America, and the Commonwealth of Independent States. A regional expertise is especially relevant for work in governmental and nongovernmental agencies, regional and international organizations, and private and volunteer groups.

The combination of theory and practical knowledge in the international studies program prepares students for a wide range of careers in government, business, intergovernmental organizations, and nonprofit institutions. In the broader perspective, international studies is a vital academic program that nurtures intelligent approaches to world problems and to America's leading, but difficult international role.

Requirements for the program are currently being revised and updated and may be in place by fall 1992. Students who want to learn more about the program should check with the coordinator or with the CAS Dean's office. Below is a description of the program as it currently exists.

### ***Programs and Requirements***

Number of credits required to complete the self-designed major in international studies: 66 (exclusive of the Core curriculum). Students should declare the major by the beginning of their second year.

#### **I. Fundamentals**

Preparation for the international studies major includes courses that are designed to provide a general background in liberal arts and also have particular relevance for the subject matter and study of international affairs.

##### **Required (9 credits)**

POS 104J	Introduction to International Relations
ECO 201J	Macroeconomics
GEO 301	Political Geography

##### **One of (3 credits)**

HTY 132I	United States History Since 1877
POS 101J	Introduction to American Government

##### **One of (3 credits)**

HTY 101I	Western Civilization I
CLA 291I	The Golden Age of Greece
CLA 292I	Rome, from Republic to Empire
PHI 310I	History of Ancient Philosophy
ENG 351	Chaucer and the Medieval World

In fulfilling Core curriculum requirements, students will take the following courses:

##### **Other Times/Other Cultures**

HTY 102I	Western Civilization II
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##### **Social Sciences**

ECO 202J	Microeconomics
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##### **Quantitative Decision Making**

MAT 120D	Introduction to Statistics
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Note: Students with a concentration in International Affairs Management will satisfy this requirement by taking MAT 110D or MAT 152D.

***Qualifying Requirement in Research and Writing:*** By the end of their fourth semester in the international studies program, students will submit to the director a research paper on a topic related to their course of study in the major. The paper should be 12-15 pages, typewritten, and double-spaced. The paper must conform stylistically to the standards set forth in a published manual of style, such as K. Turabian, *A Manual for Writers of Term Papers, Theses, and Dissertations*. Students may submit papers written as part of the requirements for any course. The paper will be evaluated by the director of international studies and a faculty member of the International Studies Council. The paper must meet acceptable program standards. An acceptable research paper is required before students may begin the senior thesis.

#### **II. Foreign Language**

Third-year competency in a foreign language, usually 18 credit hours, is required for a major in International Studies. Those students who choose the Regional Affairs concentration will take the language of the selected region to fulfill the degree requirement.

#### **III. Concentration**

Students will specialize in one of three subfields of international studies: (a) foreign policy analysis; (b) international affairs management; or (c) regional affairs. The choice of concentration must be made no later than the beginning of the third semester of enrollment in the major. The requirements for each of the concentrations are listed below.

##### **A. Foreign Policy Analysis**

##### **Required: (12 credits)**

POS 275	U.S. Foreign Policy
POS 386	Arms and Negotiation
HTY 378	Diplomatic History of the United States I

HTY	379	Diplomatic History of the United States II
One of (3 credits)		
POS	389	International Law and Organization
HTY	324	World Wars I and II: European War and Diplomacy
One of (3 credits)		
POS	239	Soviet Foreign Policy
POS	249	International Politics of the Middle East
HTY	381	Latin America and the U.S.
One of (3 credits)		
POS	238	Canadian Government and Politics
POS	235	Democratic Governments of Europe
POS	236	Communist Governments
HTY	390	China and Cuba under Communism
POS	242	Government and Politics of the Middle East
POS	247	The Politics of China
One of (3 credits)		
HTY	322	20th Century Europe
HTY	336	Leaders of the 20th Century: Churchill, Roosevelt, Hitler
HTY	330	Germany: Bismarck to Hitler
HTY	334	The Holocaust: Policy, Practice, Response
HTY	328	Fascist Italy
HTY	318	Russia and the Soviet Union Since 1855
HTY	388	History of Modern China
HTY	389	History of Modern Japan
HTY	386	History of South Africa
HTY	384	Contemporary Africa
One of (3 credits)		
POS	385	Peace and National Security
POS	250	International Terrorism
HTY	375	CIA: U.S. Foreign Intelligence Since Pearl Harbor
SOC	385	The Sociology of Soviet Marxism
HTY	377E	Chinese Thought

Elective (3 credits)

In consultation with the advisor, students will choose one elective from the courses listed above.

## B. International Affairs Management

Required (12 credits)

POS	240	The Politics of Developing Nations
ECO	360	Economic Development
ECO	370	International Economics
ECO	385	U.S. Economic Policy
One of (3 credits)		
ECO	350	Comparative Economic Systems
ECO	351	Economic System of the Soviet Union
ECO	361	Case Studies in Economic Development

One of (3 credits)

ECO	315	Political Economy
ECO	330	Urban Economics

Electives (12 credits)

In consultation with the advisor, students will select four courses from the list below.

ANT	202I	Origins of Civilization
ANT	213	Cultural Ecology
ANT	222I	Peoples of the North
ANT	232I	Women in Cross-Cultural Perspective
ANT	302	Medical Anthropology
ANT	303	Food and Nutrition: An Anthropological Perspective
GEO	209	Introduction to Land Use Planning
GEO	303	Economic Geography
GEO	401	Food and Hunger
HTY	371	American Economic and Business History since 1860
ECO	340	History of Economic Thought
SWO	364	Comparative Social Welfare Systems
SOC	310	Social Change
SOC	353	Social Movements
SOC	355	Politics and Society
COM	275	Theories of Language

COM	280	Mass Media and Human Interaction
COM	320	Intercultural Communication
NUR	324	Cultural Diversity in Health
ITP	100	Modern Industry
MAT	211	Probability
MAT	212	Statistics

### C. Regional Affairs

Students will select one of the following regions for this concentration: Europe, Latin America, or the Commonwealth of Independent States.

#### 1. Europe

Required (15 credits)

POS	235	Democratic Governments of Europe
HTY	324	World Wars I and II: European War and Diplomacy
HTY	322	20th Century Europe
HTY	320	Europe at the Turn of the Century
HTY	330	Germany: Bismarck to Hitler

One of (3 credits)

POS	245	British Politics
HTY	326	History of England

One of (3 credits)

FRE	291	French Civilization: An Historical Approach
FRE	292	French Civilization: Contemporary France
HTY	316	French Revolution and Napoleon

One of (3 credits)

HTY	327	Italy, Unification to World War I
HTY	328	Fascist Italy

One of (3 credits)

HTY	336	Leaders of the 20th Century: Churchill, Roosevelt, Hitler
HTY	334	The Holocaust: Policy, Practice, Response
HTY	339	European Women's History
PHI	380	Contemporary Continental Philosophy

Elective (3 credits)

In consultation with the advisor, students will choose one elective from the courses listed above.

*Note* that the requirements for a Regional Affairs Concentration in Europe may also be fulfilled by completing the self-designed major in French studies or the self-designed major in German studies.

#### 2. Latin America

Required (15 credits)

HTY	181I	Latin America I
HTY	182I	Latin America II
HTY	383	Society and Culture of Latin America
HTY	381	Latin America and the U.S.
HTY	390	China and Cuba Under Communism

One of (3 credits)

POS	240	Politics of Developing Nations
ECO	360	Economic Development

Electives (12 credits)

In consultation with the advisor, students will select four additional courses related to Latin American regional affairs.

*Note* that the requirements for a Regional Affairs Concentration in Latin America may also be fulfilled by completing the self-designed major in Hispanic studies.

#### 3. The Commonwealth of Independent States

Required (24 credits)

HTY	317	Early Russian History
HTY	318	Russia and the Soviet Union Since 1855
POS	237	Politics of the Soviet Union
POS	239	Soviet Foreign Policy
ECO	351	Economic System of the Soviet Union
SOC	385	The Sociology of Soviet Marxism
RUS	351	Seminar in Russian Literature
RUS	421	Reading and Translating Russian

Electives (6 credits)

In consultation with the advisor, students will select two additional courses. At least one of the two electives must be chosen from the list below.

RUS 291		Russian and Soviet Culture and Civilization
POS 236		Communist Governments
HTY 390		China and Cuba Under Communism
POS 247		The Politics of China
HTY 388		History of Modern China
POS 249		International Politics of the Middle East

*Note* that the requirements for a Regional Affairs Concentration in the Commonwealth of Independent States may also be fulfilled by completing the self-designed major in Russian studies.

#### IV. Seminar and Thesis

Students in the International Studies major will be required to take a seminar in the first semester of their senior year and to write a thesis during the final semester. The thesis will be written under the supervision of a faculty advisor. The topic for the senior thesis must be approved at the time of enrollment in the seminar. The seminar and the thesis each count for three course credits.

Required (6 credits)

INS 490	International Studies Seminar
INS 495	Senior Thesis

*Note* that the International Studies students with a Regional Affairs concentration in the Commonwealth of Independent States may take RUS 470 to fulfill the Senior Thesis requirement.

#### ***Study Abroad***

It is strongly recommended that international studies students plan a semester of study abroad. See USM's brochure, "International Study Opportunities," for suggestions regarding programs of study in other countries. Students are urged to contact the campus Office of International Student Development for further information.

#### ***Internships***

International Studies students gain valuable insight into their field through internships in international affairs. Information on internship opportunities can be obtained from the office of the director of international studies.

#### ***International Studies Workshops***

Students in International Studies have the opportunity to focus on current issues through study groups and organized discussions with distinguished experts. The International Studies Guest Lecture Series helps to inform and educate the broader community as well as members of the University who are concerned with international developments. Typical workshop themes include Superpower Negotiation, Ethics of Foreign Policy, and the Changing International Order.

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#### **INS 480 Independent Study I**

This course is intended for advanced students in International Studies who want to develop further their research skills and knowledge of particular subject areas 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 International Studies. Prerequisite: advanced standing in International Studies Program. Cr 3.

#### **INS 481 Independent Study II**

Advanced students who wish to participate in international affairs programs at the local, national, or international level may develop a study plan that includes systematic analysis and writing on issues and problems with an international focus. A variety of programs is available to USM students, including the North American Student Seminar, International Studies Workshops, and other organized efforts that educate in the global dimension. All courses of study must be carried out with a faculty advisor and have the approval of the director of International Studies. Prerequisite: POS 104 or HTY 102I, or permission of the instructor. 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. There are various possibilities for work related to international affairs; for internship arrangements and course responsibilities, consult the director of International Studies. 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. In addition to intensive analysis of classical and current works, students will be asked to develop and present their research designs for the senior thesis. The seminar is restricted to first-semester seniors in the program. Cr 3.

## INS 495 Senior Thesis

All students enrolled in the International Studies program are required to write a senior thesis. The topic of the thesis should be chosen in consultation with a faculty advisor well in advance, and no later than by the time of enrollment in the International Studies seminar. The thesis should be at least 50 typewritten pages in length. It will be bound and permanently

held by the University Library. Students will give a public defense of the thesis, and it will be evaluated by a faculty committee consisting of the student's thesis advisor, one faculty member from the International Studies Council, and one faculty member chosen at large by the director of International Studies. The thesis is written in the student's final semester of the program. Cr 3.

## LINGUISTICS

*Coordinator:* Wayne Cowart, 59 Exeter Street, Portland

*Linguistics Council:* Bjelic, Bouchard, McDaniel, Rusch, Tizon, Wood

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.

The linguistics program is designed primarily (but not exclusively) for students who intend to pursue graduate education 1) in a field to which the study of language is of practical relevance or 2) in an academic discipline where an undergraduate background in linguistics is valuable. Fields where linguistics is of practical relevance include education (foreign language teaching, English, ESL, literacy, learning disorders, sign language and deaf education, etc.), medicine (language disorders, speech and language therapy, audiology, etc.), computer science (user interface design, speech recognition, parsing, database query systems, etc.), government and law (international law, interpretation of legal codes, treaties, texts, etc., language policy, diplomacy, translation, etc.), and others. Among the academic disciplines where a background in linguistics can be valuable are linguistics, cognitive science, psychology, foreign languages, speech science, computer science/artificial intelligence, anthropology and philosophy.

The goals of the program are 1) to help each student develop a sophisticated understanding of the nature of natural language, and 2) to help each student compile a record of achievement that will earn acceptance to graduate programs of the first rank.

### Requirements

Number of credits required to complete the self-designed major in linguistics: 45 (exclusive of the Core curriculum). To enroll in the program, students must have completed LIN 185J with a grade of at least B.

- Linguistics Core: LIN 185J, LIN 311-314 (15 hours)
- Research component: LIN 390, LIN 498 (6-9 hours, depending on whether LIN 498 is taken once or twice). Note that the statistics prerequisite for LIN 390 does not count toward the 45-hour requirement.
- Language component: For these purposes, a second language is any natural language other than one's native language. Linguistics majors must demonstrate competency in a second language up to at least the level expected of students completing four semesters of study of that language. Students who have not mastered another language before entering the program may apply up to 12 hours of language study toward the satisfaction of the 45-hour requirement in linguistics. Students who come to the program having already demonstrated competency in a second language (e.g., native speakers of some language other than English) may apply up to 12 hours of further language study to the 45-hour requirement, or may take an additional 12 hours of approved linguistics electives. (0-12 hours)
- Electives: From 9 to 24 hours of electives will be required to meet the 45-hour requirement for the program. A minimum of two elective courses must be drawn from courses whose primary focus is linguistic. These include, for example, the series of 400-level LIN courses and the series of linguistics courses offered by the English Department (specifically, ENG 330, ENG 331, ENG 333, ENG 334, ENG 335, and ENG 336).

**Scheduling:** In the ideal case, students should enroll in the program before registering for the second semester of the sophomore year.

Once admitted to the major, the student should take LIN 311, LIN 312, LIN 313, LIN 314, and an approved statistics course (MAT 120D or PSY 201D) at the earliest opportunity. The research methods course (LIN 390) should be taken during the spring of the student's junior year.

During the fall of the senior year, the student should enroll for thesis hours. At the end of the fall semester of the senior year, the student must submit a research-based thesis to the linguistics program faculty. It is intended that this paper will be available as a credential when students are applying to graduate school. Early in the spring semester of the student's junior year, the student should select a thesis advisor with whom to work on the thesis project. Faculty members from all relevant departments may serve as thesis advisors, subject to the approval of the Linguistics Council.

Students enrolled in the program are expected to maintain regular contact with the program faculty and to participate in or attend various program events (guest lectures, colloquia, etc.) that will be scheduled from time to time.

*Electives:* Electives may be drawn from the courses listed below. Note that many of these courses involve prerequisites. Though courses taken to satisfy the University's Core requirements do not count toward the major, students are encouraged to select their Core courses from this list where possible. These elective offerings allow students to pursue any of a variety of perspectives on natural language.

The diversity of the offerings emphasizes the role that language plays as an integrator of scholarly disciplines as disparate as physics, biology, and philosophy. The student should consult with his/her advisor in composing a coherent set of electives. Special care should be taken in this matter. The elective courses chosen should support the thesis work the student expects to do. Where the student's program has room for two or more electives there should be a demonstrable relation between the selected electives and some identifiable theme within the study of language.

*Approved Electives:*

BIO	207	Human Heredity and Embryology
BIO	217	Evolution
BIO	251	History of Biology
BIO	301	Genetics
ENG	330	History of the English Language
ENG	331	Modern Grammars
ENG	333	Structural Linguistics and Culture
ENG	334	Semantics
ENG	335	Discovering Grammatical Structure
ENG	336	Old English Language and Literature
ENG	351	Chaucer and the Medieval World
FRE	305	French Phonetics
SPA	332	Advanced Grammar and Stylistics (Spanish)
ANT	102K	Biological Anthropology
ANT	201J	Human Origins
ANT	220I	North American Indians
MUS	130F	Music Theory I
MUS	130	Music Theory Lab
PHI	205	Symbolic Logic
PHI	225	Philosophical Psychology
PHI	250	Philosophy of Science
PHI	270	Epistemology
PHI	275	Theories of Language
PHI	330I	History of Early Modern Philosophy: Descartes to Kant
PHI	370	Analytic Philosophy
PHY	105	Acoustics and Noise
SOC	312	Class and Inequality
SOC	371	Minority Groups
COS	280	Discrete Structures
COS	285	Data Structures
COS	360	Programming Languages
COS	457	Database Systems
COS	469	Introduction to Compiler Construction
COS	472	Artificial Intelligence
COS	480	Theory of Computation
ELE	483	Communications Engineering
ELE	486	Digital Signal Processing

*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 311-314, and two electives. Electives may be drawn from the list of 400 level LIN courses or the list of approved linguistics electives in English and other programs. Students may also use one course in the series LIN 111I-203 as an elective toward the minor in linguistics.

### **LIN 111I Bilingualism**

Most of the world's people have a daily need to produce and understand one or more languages beyond their native language. In short, most of the people in the world are to some degree bilingual. This course reviews some of the many aspects of bilingualism. These include the effects that a first language exerts on second and later languages, the psychology and neurology of bilingualism, and the social and political aspects of being bilingual. Cr 3.

### **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 113J Origins to Language**

The course provides a rigorous examination of two views about how humans developed the ability to use language. One view is that language was deliberately invented and relies on human capacities whose original "purpose" had nothing to do with language. Another is that language ability depends upon specific biological traits that emerged because of their contribution to language. This debate leads to a variety of questions about the nature of language, the functions it serves, and the way children acquire it. The course draws on many kinds of evidence, from fossil skulls to patterns of change in modern languages over the last several hundred years. Cr 3.

### **LIN 185J Introduction to Language**

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 communication and language development. The course deals with the process by which children become able to understand, to speak, and to use effectively their native language. It touches on the development of the

sound system, word learning, the emergence of sentence structure, and the development of communicative competence. Cr 3.

### **LIN 202I Languages of the World**

An introductory overview of the world's languages. This course is intended to convey a sense of the diversity of human language and exposes students to some of the great variety of sound systems, word-building systems, sentence patterns and communicative practices that are found across the thousands of linguistic communities in the world today. The course looks at the deep commonalities that unite diverse linguistic systems. The historical relationship and sociopolitical status of languages are also discussed. Cr 3.

### **LIN 311 The Sound System of Natural Language**

An introduction to the sound system that covers the basic elements of articulatory and acoustic phonetics, speech perception, and the phonological systems of natural languages. The course also reviews the process by which infants come to be competent hearers as well as competent speakers of the word and sentence forms of their native language. The contributions of selected brain regions to the use of the sound system is discussed, as is variation in the sound system and how sound systems change over time. Prerequisite: LIN 185J. Cr 3.

### **LIN 312 Words in Natural Language**

An introduction to the role of words in natural language. The course considers the nature of words and the processes by which particular words come to be established in a given community, as well as 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. The semantic and philosophical implications of variability in word meaning are considered. The course also gives particular attention to the great variety of word-building systems that occur in the world's languages, as well as to the means by which children learn words and acquire the word-building processes of their native language. Evidence that specific brain regions contribute to the use of words is also considered. Prerequisite: LIN 185J. Cr 3.

### **LIN 313 Sentences in Natural Language**

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: LIN 185J. Cr 3.

### LIN 314 Meaning in Natural Language

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: LIN 185J. Cr 3.

### LIN 390 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 185J and one of the following: PSY 201D (Statistics in Psychology), MAT 120D (Introduction to Statistics); or an equivalent course. Cr 3.

### LIN 421 First Language Acquisition: Sentences

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 activities of the brain and mind that listeners and readers use to understand sentences, as well as to the mental representations that these processes construct. The course considers how the words of speech and writing are integrated into coherent phrases and sentences, and how listeners use the structure of sentences to help determine their interpretation. The course considers how various common sentence forms ease or disrupt the processes of comprehension. Prerequisites: LIN 185J, LIN 313. Cr 3.

### LIN 498 Thesis

Students enrolled in the self-designed major in linguistics are required to write a research-based senior thesis. The topic for this project must be selected in consultation with the student's advisor and approved by the Linguistics Council. Students must give a presentation and defense of their projects upon completion. The finished thesis must be approved by the Linguistics Council and should be completed by the end of the fall semester of the student's senior year. This course may be taken for credit twice. Prerequisites: LIN 185J, LIN 311-314, approval of project proposal. Cr 3.

## 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.

One language theory course or two semesters of Greek.

#### Humanities

RUS	301	Advanced Russian I
RUS	302	Advanced Russian II
RUS	351	Seminar in Russian Literature
RUS	421	Reading and Translating Russian Expository Prose
RUS	291	Russian Culture and Civilization (in English)
RUS	470	Independent Study

#### Social Sciences\*

ECO	351	Economic Systems of the Soviet Union
HTY	317	Early Russian History
HTY	318	Russia and the Soviet Union since 1855
POS	237	Politics of the Soviet Union
POS	239	Soviet Foreign Policy

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

MAT	120D	Introduction to Statistics
POS	104J	Introduction to International Relations
POS	236	Communist Government
HTY	101I	Western Civilization I
HTY	102I	Western Civilization II
HTY	172I	Modern East Asia
HTY	374	History of Modern China
GEO	101J	Principles of Geography

\*Note that all upper division courses have prerequisites.

## **SOCIAL SCIENCE**

*Coordinator:* Eugene Schleh, 200A Bailey Hall, Gorham

The self-designed major in social science is a multidisciplinary program offered by the Departments of Economics, Geography-Anthropology, History, Political Science, and Sociology. Each student must take a minimum of 51 credits, 21 of which must be in a particular subject area.

Students must meet the following requirements within the discipline selected for concentration:

- I.
  - a. *Geography-Anthropology* to include ANT 101J, ANT 102K, ANT 103, GEO 101J, GEO 102K, GEO 201J and either GEO 104 or GEO 205 or ANT 306. (22 credits)
  - b. *History* to include at least 12 credit hours at the 200 level or above.
  - c. *Political Science* 21 credit hours as arranged with advisor.
  - d. *Sociology* to include SOC 100J, SOC 205, SOC 300, and SOC 312.
  - e. *Economics* to include ECO 201J, ECO 202J, ECO 301, and ECO 302, and three advanced economics courses. (21 credits)
- II. Remaining courses must include three each, in each of three of the remaining four disciplines. Nine of these credits must be upper division level (200 or above).
- III. One course (3 credits) must be Independent Study to be supervised by two faculty, one of whom is in the discipline of concentration. This requirement may only be met during the senior year or during the second semester of the junior year.

## **WOMEN'S STUDIES**

*Director:* Diana E. Long, 94 Bedford Street, Portland

*Women's Studies Council:* Cameron, Cole, Crader, Eagan, Franklin, Gilmore, Gish, Goldstein, Holden, Kingsland, Kissen, Lockridge, MacPherson, Messerschmidt, Murphy, Padula, Thompson, Tizon, Wininger, Woshinsky

For information regarding the self-designed major in women's studies, please see the section on women's studies.

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# Art

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*Chair of the Department:* Rose Marasco, 6 Robie Andrews Hall, Gorham

*Professors:* Bearce, Franklin, Ubans; *Associate Professors:* Burk, Hewitt, Marasco, M. Moore, Rakovan, Schiferl; *Assistant Professors:* Cassidy, Reed, Shaughnessy, Wilson

The Department offers two bachelor's degrees: the bachelor of arts (B.A.), and the bachelor of fine arts (B.F.A.). The B.A. with a concentration in art history provides a solid background for art history majors and the studio-oriented B.A. provides a broad liberal arts education. The B.F.A. is designed to provide an intense studio education and to prepare students for artmaking, graduate study, and teaching. Minor programs of study are offered in both art history and art education. In all of the programs, the faculty strive to promote the student's creative abilities.

Specifically, the Department's goals for students are a) to provide a broad and challenging foundations program, which will enable students to develop self-awareness, historical perspective, and insight into the meaning and application of media in the visual arts; b) to develop analytical skills to investigate, experiment, and to make judgments within a framework of reason; c) to develop vocabulary appropriate to the visual arts; d) to develop an overview and understanding of literature on art; e) to develop an open attitude for viewing and creating art; f) to develop basic proficiencies in a variety of art media, as well as an in-depth competency in selected art areas; g) to develop nonverbal communication skills; and h) to provide an enriching gallery program for students, faculty and staff, and the greater Portland community.

Above all, the faculty helps students develop an intelligent and cosmopolitan attitude about art, and encourages self-reliance in developing their own artwork and other creative endeavors.

## ***Admission Requirements***

Students who apply for admission to the Department of Art should observe the following procedure. Formal application should be made to the director of Admissions, Admissions Office. 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.

By following these procedures a student is identified as a candidate for matriculation in the Department of Art. All candidates must complete the art foundation, consisting of Fundamental Design I & II, Fundamental Drawing I & II, Art History: Prehistoric to Medieval, and Art History: Renaissance to Modern before matriculating as an art major in the Department of Art.

In order to become a full-time matriculated art major in one of the two degree programs, a portfolio of original works must be submitted to the Department for evaluation. This must be done subsequent to or during the semester in which art foundation requirements are being completed. The portfolio should consist of 12 works in varying media, including one self-portrait drawn from life. The entire portfolio may indicate the applicant's current interest and should include examples of designs and drawings typical of those completed at the art foundation level. The portfolio may also include prints, paintings, posters, and photographs, but 35mm slides or photographs of three-dimensional work should be submitted rather than the work itself. In addition to the quality of the works, presentation should be considered for the purposes of appearance and protection. The Department cannot accept responsibility for damage or loss and asks that no glass, three-dimensional work, or item larger than 36" x 36" be submitted.

Portfolio deadlines and application forms may be obtained from the Department of Art. 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 also must follow the departmental admission procedures concerning submission of portfolio, as described above.

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.

## ***Programs and Requirements***

### ***Bachelor of Arts (B.A.)***

The minimum number of credits (exclusive of the University's Core curriculum and electives) required for the major: 45.

Art Foundation (18 credits)

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

Art History Requirements (9 credits)

ARH	411	Philosophy of Art (may substitute PHI 220)
ARH	Elective	
ARH	Elective	

Studio Art Requirement (18 credits, all electives)

Electives (41 credits)

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*

In order to become a matriculated art major, the student must apply for admission to the program during the semester the foundation courses are being completed or 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 to Medieval
ARH	112G	Art History: Renaissance to Modern
ART	141F	Fundamental Design I (2-D)
ART	142	Fundamental Design II (3-D)
ART	151F	Fundamental Drawing I
ART	152	Fundamental Drawing II

Upper Level Requirements (27 credits)

ARH	411	Philosophy of Art (or PHI 220)
ARH	212, 213, or 214	Classical, Medieval, or Renaissance
ARH	216, 315, 316, or 317	19th or 20th Century Western Art
ARH	210 or 217	Non-Western Art
ARH	410	Seminar in Art History (May substitute ARH 412 Topics in Art History with permission of the Art Department Chair)

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. The student should consult with the 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.

*Bachelor of Fine Arts (B.F.A.)*

The minimum number of credits (exclusive of the University's Core curriculum and electives) required for the major: 72.

Art Foundation (18 credits)

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

### Art History Requirements (9 credits)

ARH 411 Philosophy of Art (may substitute PHI 220)

ARH Elective

ARH Elective

### Studio Art Requirement (45 credits)

9 credits in Drawing above the 152 level

3 credits from each of the following disciplines: painting, printmaking, photography, ceramics, and sculpture, to be completed by the end of the sophomore year.

21 credits ART electives

### Studio Concentration Requirement

A 12-credit concentration in painting, sculpture, printmaking, photography, ceramics, or drawing is required. In addition, B.F.A. candidates are required to have an exhibit of their work during their senior year. The student's advisor and department chairperson must be notified about the place and time of the exhibit at least two weeks prior to the opening of the exhibition.

Electives (14 credits)

In order 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 and one 3-credit art history course at USM.

### Minor in Art Education

The minimum number of professional education credits required for the minor: 18.

In addition to the requirements listed above for the B.F.A. degree, students may earn this minor by successfully completing the following courses:

EDU 200 Education in the United States

EDU 210 Theoretical Foundations of Learning

HRD 333J Human Growth and Development

EDU 336 Children's Literature

AED 221 Practicum in Art Education

AED 321 Principles and Procedures in Art Education

### Minimum Grade Point Average

A 2.5 minimum G.P.A. must be maintained in order to register for AED 321, AED 421, and in order to graduate from the program.

Students interested in graduate study leading to Maine State certification in art education, K-12, or obtaining a master's degree in education, should apply to the graduate program of the College of Education.

### Course Fees

A course fee is assessed in ceramics, drawing, painting, photography, printmaking, and sculpture courses.

### ART 101G Approaches to Art

Selected experiences using original works, lecture, panel discussion, slides, films, and other means to confront the student with 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 416 Exhibitions & Gallery Management

Problems in the operation of an art gallery. Various exhibition, installation and handling techniques; design and distribution of promotional material. Practical experience in connection with the operation of the USM Art Gallery. Prerequisite: art foundation courses. Cr 3.

### Art History

#### ARH 111G Art History: Prehistoric to 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: none, but 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 Modern

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: none, but preference given candidates for matriculation in the Department of Art, or those with permission of the instructor. Cr 3.

### **ARH 210 G 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: ENG 100C. Cr 3.

### **ARH 211G Gender Identity and Modern Art**

From the Victorian age to the current day, communities of artists and critics have defined themselves in opposition to the dominant norms of maleness and heterosexuality. This course looks at two identities invented by the Victorians—"feminist" and "homosexual"—and traces their expression in the visual arts. Historical study forms the basis for the course's primary focus on the art and criticism generated by the modern feminist and gay movements. Cr 3.

### **ARH 212 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. Prerequisite: ARH 111G. Cr 3.

### **ARH 213 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 214 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 foundations that contributed to the development of Renaissance art. Prerequisite: ARH 112G. Cr 3.

### **ARH 215 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 216 American Art**

#### **(Seventeenth through Nineteenth Centuries)**

Survey of painting, sculpture, and architecture from Colonial times to 1900 in the United States with a focus on works from the New England area. These works will be examined in relation to historical events and cultural ideals. Field trips to local museums and architectural sites. Prerequisite: none. Cr 3.

### **ARH 217 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 218 Women in Art**

A focus on women in the arts; their images, ideals, dialogues, politics, and history through contemporary

trends. The course will be enhanced with slides, films, videotapes, papers, panels and discussions. Prerequisite: permission of instructor. Cr 3.

### **ARH 273 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.

### **ARH 315 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. Cr 3.

### **ARH 316 Modern Art**

A continuation of ARH 315 covering the period from 1900-1950 and including the growth and development of the modern "isms." Prerequisite: ARH 112G. Cr 3.

### **ARH 317 Contemporary Art (1950-Present)**

An examination and discussion of development in the visual arts since 1950. Prerequisite: ARH 112G. Cr 3.

### **ARH 410 Seminar in Art History**

Cr 3.

### **ARH 411 Philosophy of Art**

An investigation into the theories of art and beauty found in the writings of philosophers, painters, writers, and critics which form the basis of understanding of the fine arts. Readings and discussion of writers from ancient to modern times. Prerequisite: ARH 112G. 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. Prerequisite: permission of instructor and Art Department chairman. Cr 1 to 6.

### **Studio Art**

#### **ART 141F Fundamental Design I (2-D)**

A studio introduction to the basic elements of two-dimensional and color relationships. Cr 3.

#### **ART 142 Fundamental Design II (3-D)**

A studio introduction to the basic elements of three-dimensional relationships and "the aggregate," an extended project interrelating the two- and three-dimensional. Prerequisite: ART 141F. Cr 3.

#### **ART 151F Fundamental Drawing I**

A studio introduction to drawing, including the

basic elements of line, tone, design, and representation. Cr 3.

### **ART 152 Fundamental Drawing II**

A continued introduction to drawing, using the basic graphic elements studied in Drawing I. Cr 3.

### **ART 231 Ceramics**

An introduction to methods and processes of clay forming, including modeling, pressing, handbuilding, and the potter's wheel. Emphasis on form and texture, with aspects of glaze composition and firing procedures. Prerequisite: art core courses. Cr 3.

### **ART 251 Drawing**

Extensive combining of media. Stress on role of images, both object and model. Prerequisite: ART 152. Cr 3.

### **ART 261 Painting**

An introduction to basic aspects of the painting process as related to visual perception and technique. Prerequisite: art core courses. Cr 3.

### **ART 271 Photography**

Photography as a creative medium. Introduction to basic skills in the use of the camera and darkroom equipment. Investigation and practice in the fundamental techniques and processes of black and white photography as an art form. Prerequisite: art core courses. Cr 3.

### **ART 281 Printmaking**

Introduction to the rudimentary materials and methods of basic printmaking media such as intaglio, lithography, relief, and serigraphy. Prerequisite: art core courses. Cr 3.

### **ART 291 Sculpture**

A foundation course directed towards the developing awareness of basic elements of sculptural form and the discipline of making objects. Prerequisite: art core courses. Cr 3.

### **ART 331/332 Intermediate Ceramics**

Application of design principles in production of ceramicware with a concentration on advanced problems in wheel-thrown forms and handbuilding sculptures. Prerequisite: ART 231. Cr 3/3.

### **ART 351/352 Intermediate Drawing**

Continued drawing with emphasis on independent direction. Prerequisite: ART 251. Cr 3/3.

### **ART 361/362 Intermediate Painting**

Continued investigation of the painting process using both assigned problems and arrangements of the student's own invention. Use of a variety of media. Prerequisite: ART 261. Cr 3/3.

### **ART 363 Painting/Watercolor**

Watercolor, wash, dry-brush, ink and wash, gouache, and other techniques in watermedia. Emphasis on

individual concepts and personal expression. Prerequisite: ART 261. Cr 3.

### **ART 365/366 Intermediate Watercolor**

Continuation of Painting/Watercolor with emphasis on personal expression. Prerequisite: ART 363. Cr 3/3.

### **ART 371/372 Intermediate Photography**

Exploration of concepts and techniques of photography with emphasis on individual forms of expression. Taught alternate semesters as: Color Imagery or Black & White Imagery. Prerequisite: ART 271. Cr 3/3.

### **ART 381/382 Intermediate Printmaking**

Application of the basic knowledge of printmaking as it concerns image-making, with an emphasis on at least two of the media studied in ART 281. Prerequisite: ART 281. Cr 3/3.

### **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 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. 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 431/432 Advanced Ceramics**

Investigation and realization of advanced ceramics projects with an emphasis on personal development and professional attitudes. Prerequisites: ART 331 and 332. Cr 3/3.

### **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 461/462 Advanced Painting**

Continuation of Intermediate Painting. Emphasis on individual concepts and personal expression. Prerequisites: ART 361 and 362. Cr 3/3.

### **ART 471/472 Advanced Photography**

Investigation of advanced photography projects with



emphasis on personal expression and individual concepts of image-making. Prerequisites: ART 371 and 372. Cr 3/3.

#### **ART 481/482 Advanced Printmaking**

Study and realization of personally developed imagery through advanced investigation of preferred print-making media. Prerequisite: ART 381 or ART 382. Cr 3/3.

#### **ART 491/492 Advanced Sculpture**

Continuation of Intermediate Sculpture with emphasis on the pursuit of personal imagery. Prerequisites: ART 391 and 392. 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.

### *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 art-making and learning is relevant to prospective art and classroom teachers. Prerequisite: sophomore standing or above and art core courses. 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 strategies, 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 core courses. 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 412 Topics in Art Education**

A course on a selected topic in art education to be offered at least once a year. Prerequisite: permission of the instructor. Cr 3.

#### **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, writing, 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.

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## Biological Sciences

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*Chair of the Department:* Louis F. Gainey, Jr., 408 Science Building, Portland

*Health Professions Advisor:* Patricia M. O'Mahoney-Damon, 206 Science Building, Portland, *Professors:* Gainey, Mazurkiewicz, Najarian; *Associate Professors:* Holmes, O'Mahoney-Damon, Riciputi; *Assistant Professors:* Dorsey, Knight, Weber

A four-year program leading to a B.A. in biology is offered. The program provides students with a liberal arts education emphasizing the sciences. The required biology courses expose the student to an examination of life from the molecular to the community level. 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 biology today. Graduates of this program have found careers in biological and medical research laboratories, field biology and pharmaceutical sales, or have furthered their education by entering graduate medical, dental, optometry, veterinary, and law schools, as well as schools for allied health professions.

### *Biotechnology*

The department also offers a self-designed major in biotechnology in conjunction with the Department of Chemistry. For further information see the Interdepartmental Major Programs section of this catalog.

### *Pre-medical 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 is comprised of faculty from the Departments of Biology, Chemistry, and Physics and is responsible for evaluating, comparing, and recommending students. For further information contact Patricia O'Mahoney-Damon, 206 Science Building, Portland.

## ***Programs and Requirements***

### ***Bachelor of Arts***

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 68. A grade of C or higher in courses with a BIO prefix is required for the major, and a GPA of 2.0 in all other courses required for the major.

All of the following are required:

BIO	105K, 106K	Biological Principles I and Laboratory
BIO	107, 108	Biological Principles II and Laboratory
BIO	301	Genetics

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, 292	Ornithology and Laboratory
BIO	304	Embryological Development
BIO	333, 334	Ichthyology and Laboratory
BIO	335	Entomology
BIO	351, 352	Invertebrate Zoology and Survey of Invertebrates
BIO	361, 362	Parasitology and Laboratory

#### **AREA 2: Community-Ecosystems**

BIO	331, 332	Ecological Principles and Field Ecology
BIO	341, 342	Limnology and Field Limnology

#### **AREA 3: Functional Biology**

BIO	381	Plant Physiology
BIO	401, 402	General Physiology and Laboratory
BIO	403, 404	Comparative Physiology and Laboratory

#### **AREA 4: Cellular Biology**

BIO	311, 312	Microbiology and Laboratory
BIO	409, 410	Cell and Molecular Biology and Laboratory

In addition to BIO 105K, 106K, 107, 108, 301 and one course 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:

CHY	113, 114	Principles of Chemistry I and II and Laboratory
	115, 116	
CHY	251, 252	Organic Chemistry I and II and Laboratory
	253, 254	
MAT	220	Statistics
MAT	152	Calculus A
PHY	111K, 112K	Elements of Physics I and II
<b>OR</b>		
PHY	121K, 122K	General Physics I and II and Laboratory
	123, 124	

In addition, students must fulfill the University Core curriculum requirements.

### ***Minor in Biology***

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

The minor consists of BIO 105K, BIO 106K, BIO 107, BIO 108; or BIO 105K, BIO 106K, BIO 211, BIO 212; plus electives numbered 200 or above to equal 18 hours in biology coursework. Students must complete at least 6 hours of this coursework at USM.

### ***Laboratory Fees***

A laboratory fee is assessed in biology laboratory courses.

**BIO 100K Biological Basis of Human Activity**

A course designed to elucidate the basic biological constraints of human performance. This course does not serve as a prerequisite for BIO 107 or BIO 211.

Cr 3.

**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.

Cr 3.

**BIO 102K Biological Experiences**

Laboratory studies to complement and illustrate the concepts presented in BIO 101K and BIO 100K. Prerequisite: BIO 101K or BIO 100K.

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 103K.

Cr 1.

**BIO 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.

**BIO 106K Laboratory Biology I**

Laboratory experiences illustrating concepts and principles introduced in BIO 105K. Must be taken concurrently with BIO 105K.

Cr 1.5.

**BIO 107 Biological Principles II**

An introduction to the structure, function, and ecological relationships of living organisms. Prerequisites: grades of C or higher in BIO 105K and BIO 106K.

Cr 3.

**BIO 108 Laboratory Biology II**

Laboratory experiences illustrating topics introduced in BIO 107. Must be taken concurrently with BIO 107.

Cr 1.5.

**BIO 111 Human Anatomy and Physiology I**

The course starts with the study of cell chemistry, structure, and function. Students will be introduced to the principles of genetics, reproduction, growth and development and to the study of the integumentary and skeletal system. Prerequisite: satisfactory completion of minimum proficiency requirements.

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 105K and BIO 106K.

Cr 5.

**BIO 207 Human Heredity and Embryology**

This course presents the fundamental principles of genetics and embryology as they apply to humans. The influence of nutrition, drugs, viruses, and physical agents on development will be discussed. Prerequisite: grade of C or higher in BIO 105K.

Cr 3.

**BIO 211 Human Anatomy and Physiology II**

This course focuses on many of the organ systems of the human body. The structure and function of the muscular, nervous, endocrine, cardiovascular, respiratory, digestive, and urinary systems will be discussed. Prerequisite: grade of C or higher in BIO 105K or BIO 111.

Cr 3.

**BIO 212 Practical Human Anatomy and Physiology**

Laboratory studies of the structure and functions of the human body including histology and physiological experiments. NOT open to those who have completed BIO 205. Prerequisite: grade of C or higher in BIO 106K; BIO 211 or concurrently.

Cr 1.5.

**BIO 217 Evolution**

A study of the processes of biological evolution. Prerequisite: grade of C or higher in BIO 105K.

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. Prerequisites: grade of C or higher in BIO 105K and BIO 106K.

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 105K.

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 105K, and college chemistry.

Cr 3.

**BIO 282 Microbiology and Human Disease Laboratory**

Laboratory techniques in the cultivation, identification, and control of microorganisms. Prerequisite: BIO 281 or concurrently.

Cr 2.

**BIO 291 Ornithology**

This course will consider the basic biology of birds: life histories, migration, behavior, and economic im-

portance, with emphasis on species found in Eastern North America. Prerequisite: grade of C or higher in BIO 105K. Cr 3.

### **BIO 292 Ornithology Laboratory**

This course will be an application of selected principles covered in BIO 291 with an emphasis on diversity and habitat selection. Numerous field trips to a variety of habitats for field identification of birds will be conducted. Students are responsible for supplying their own and appropriate outdoor clothing and footwear. Prerequisite: BIO 291 or concurrently. Cr 1.

### **BIO 301 Genetics**

A study of the molecular basis of heredity and methods of genetic analysis. Lecture: 3 hours/week; discussion 1 hour/week. Prerequisites: grade of C or higher in BIO 107, 108 or BIO 211, 212; one year of college chemistry; or permission of instructor. Cr 3.

### **BIO 304 Embryological Development**

An integrated lecture-laboratory course covering embryological development from fertilization through organogenesis. Prerequisite: a grade of C or better in BIO 301, or permission of the instructor. Cr 3.

### **BIO 305 Developmental Biology**

An analysis of the cellular and molecular interactions leading to normal development. Prerequisite: grade of C or higher in BIO 301 and prior or concurrent registration in BIO 304, or permission of the instructor. Cr 3.

### **BIO 311 Microbiology**

A consideration of protozoa, fungi, bacteria, and viruses of medical and biological importance. Prerequisites: grade of C or higher in BIO 105K, one year of college chemistry. Cr 3.

### **BIO 312 Microbiological Laboratory**

The laboratory isolation and examination of microorganisms by various techniques. Prerequisites: grade of C or higher in BIO 106K, BIO 311 or concurrently. Cr 2.

### **BIO 331 Ecological Principles**

The interrelationships of living organisms and their environments, including humanity's impact on ecosystems. Prerequisites: grade of C or higher in BIO 107, and BIO 108. Cr 3.

### **BIO 332 Field Ecology**

Field and laboratory studies demonstrating basic concepts of ecology. Numerous field trips. Prerequisite: BIO 331 or concurrently. Cr 2.

### **BIO 333 Ichthyology**

The systematics, structure, natural histories, and economic importance of fishes, with emphasis on species of the northeastern U.S. Prerequisite: grade of C or higher in BIO 107. Cr 3.

### **BIO 334 Ichthyology Laboratory**

Laboratory and field methods for collecting, identifying, and studying aspects of the natural history of fishes. Field work at a variety of habitats. Prerequisite: BIO 333 or concurrently. Cr 2.

### **BIO 335 Entomology**

Integrated lecture-laboratory course on the biology of insects and their impact on humanity. Prerequisites: grade of C or higher in BIO 107 and BIO 108. Cr 3.

### **BIO 341 Limnology**

The study of inland waters with special concern for the factors that influence the living populations within these waters. Prerequisites: grade of C or higher in BIO 107 and BIO 108. Cr 3.

### **BIO 342 Field Limnology**

Practical application of the methods and materials used to study inland waters and their associated living populations. Prerequisite: BIO 341 or concurrently. Cr 2.

### **BIO 345 Pathophysiology**

A study of the physiological, genetic, biochemical and environmental basis of noninfectious diseases. Prerequisite: grade of C or higher in BIO 211 or permission of instructor. Cr 3.

### **BIO 351 Invertebrate Zoology**

The morphology, physiology, and phylogenetic relationship of non-backboned animals. Prerequisite: grade of C or higher in BIO 107. Cr 3.

### **BIO 352 Survey of Invertebrates**

Laboratory experience on the anatomy, physiology, and behavior of invertebrate animals. Must be taken concurrently with BIO 351. Cr 2.

### **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 105K. 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: BIO 107 or BIO 231 and 1 year college chemistry or permission of instructor. Cr 4.5.

### **BIO 401 General Physiology**

A study of physiological processes and their regulation in animals. Prerequisites: grade of C or higher in BIO 107 or BIO 211; one year of college chemistry; one semester of physics; 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: grade of C or higher in BIO 107; one year of college chemistry; and junior standing. 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 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: two semesters of college biology with a grade of C or higher, CHY 251. Cr 3.

**BIO 410 Cell and Molecular Biology 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 411 Coastal Marine Ecology**

A comparative ecological study of coastal shores, wetlands, and estuaries. Prerequisites: grade of C or higher in BIO 331 or BIO 341. 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 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.

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## Chemistry

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*Chair of the Department:* Gale Rhodes, 350 Science Building, Portland

*Professors:* Rhodes, Ricci, Smith, Stebbins; *Associate Professors:* Gordon, Newton; *Professors Emeritus:* Sotery, 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.A. in chemistry with emphasis in biochemistry, and B.S. in applied chemistry). Since 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 interested in a chemistry major are strongly urged to consult with a member of the chemistry faculty to discuss the total program and should pay particular attention to the pre- and co-requisites necessary for different courses.

### **Programs and Requirements**

#### ***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: 60.

The courses include: CHY 113 & 114; 115 & 116; 231 & 232; 251 & 252; 253 & 254; 371 & 372, 373 & 374; two of the following five offerings: 321, 345, 351, 361 or 377/ 378; and 401 (a minimum of 39 hours within the department). In addition PHY 121K, 122K; 123, 124; MAT 152D, 153; COS 140 (FORTRAN) or a math/computer science course approved by the Chemistry Department are required (a total of 21 more hours).

To graduate as a chemistry major a student must maintain a minimum overall grade point average (GPA) of 2.0 and a GPA of 2.0 in all courses required for the chemistry major.

#### ***Bachelor of Arts: Chemistry with Emphasis in Biochemistry***

Excluding those credits required by the University Core curriculum, the minimum number of credits in chemistry and related areas required for the major in this track is 64.

The courses include: CHY 113 & 114; 115 & 116; 231 & 232; 251 & 252; 253 & 254; 361 & 362; 363; 371 & 372; 373 & 374; 401 (with the stipulation that the student elect a biochemical seminar topic). In addition,

students will elect one of the following four offerings: 321, 345, 351, or 377 & 378 (a minimum of 43 hours within the Department). Additional requirements are: PHY 121K & 122K; 123 & 124; MAT 152D & 153; and COS 140 or 160 or a math/computer science course approved by the Chemistry Department (a total of 21 additional hours).

### ***Bachelor of Science: Applied 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: 63.

The courses include: CHY 113 & 114; 115 & 116; 231 & 232; 251 & 252; 253 & 254; 371 & 372; 321 or 345 or 361; and 401 (a minimum of 31 hours within the department). In addition PHY 121K & 122K; 123 & 124; MAT 152D; COS 140 (FORTRAN) or a math/computer science course approved by the Chemistry Department are required (a total of 17 hours). In addition, a candidate for the B.S. degree must elect 15 hours of CHY 490, Senior Research.

To graduate as a chemistry major a student must maintain a minimum overall grade point average (GPA) of 2.0, and a GPA of 2.0 in all courses required for the chemistry major.

As a general rule, candidates for the B.S. degree in applied chemistry should complete the majority of their formal coursework at the University by the end of their junior year. The fourth year in the B.S. program consists partly of the intensive independent study and field experience in a specific application of chemistry. After a reasonable orientation period, the student will participate in the day-to-day operations of a laboratory (or alternative facility) as a functioning member of the staff. Supervision of the applied chemistry major during this period will be provided by a suitable qualified staff member of the host facility and by a member of the chemistry faculty, who will also supervise the independent study.

### ***Minor in Chemistry***

The minimum number of credits (exclusive of the Core curriculum) required for the minor: 17.

The minor consists of CHY 113, 114, 115, 116 and either of the following two groups of courses: 231, 232, 251, 252, or 321, 371, 373, and 374.

CHY	113/114	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)
<b>Total hours</b>			<b>(17 credits)</b>

#### **OR**

CHY	113/114	General Chemistry I with Laboratory	(4 credits)
CHY	115/116	General Chemistry II with Laboratory	(4 credits)
CHY	321	Inorganic Chemistry	(3 credits)
CHY	371	Physical Chemistry I	(3 credits)
CHY	373/374	Physical Chemistry II with Laboratory	(5 credits)
<b>Total hours</b>			<b>(19 credits)</b>

### ***Minor in Biochemistry***

The minimum number of credits required (exclusive of Core courses) for the minor: 23. The minor consists of CHY 113, 114, 115, 116, 251, 252, 253, 254, 361 and 362.

### ***Biotechnology***

The Department, in conjunction with the Department of Biological Sciences, also offers an interdepartmental major in biotechnology. See Interdepartmental Major Programs section of this catalog.

### ***Admission Requirements***

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.)

### ***Laboratory Fees***

A laboratory fee is assessed in chemistry laboratory courses.

### ***CHY 100 Foundations for College Chemistry***

A course designed to help students who are inadequately prepared to complete successfully the CHY 113-116 (Chemical Principles) sequence, either on the basis of their own perceptions or of their scores on two chemistry placement tests. The course will re-

view basic chemical principles commonly presented in high school chemistry and emphasize solving mathematical problems commonly done in freshman college-level chemistry. Two lectures and one recitation session per week. No prerequisite. 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; radiochemistry; 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 and one year of high school chemistry (taken during the past five years) or a satisfactory grade level on the proficiency test administered by the Department. 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 110K Chemistry, Life, and the Environment**

An introduction to chemistry and its importance to the citizen through the study of atoms and molecules, and how the structures of molecules give rise to the harmful and beneficial effects of chemicals. Classroom examples will include medicines, drugs, consumer products, pollutants, toxins, carcinogens,

sources of energy such as nuclear and solar power, and the molecules of life-proteins and DNA. Laboratory projects will include measuring pollutants, making and purifying well-known compounds such as aspirin, and examining the chemical content of foods. Through readings and experiments, students will learn how chemists arrive at their models of molecular structure, and how the chemist's picture of matter has become clearer and more useful over the past two centuries. This course is designed to satisfy the Natural Sciences (Area K) requirement of the Core curriculum, and is recommended for students with no prior coursework in chemistry. Three one-hour lectures and one three-hour laboratory per week. Prerequisite: completion of all the Core Basic Competence Requirements. Cr 4.

### **CHY 113 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: high school algebra and one year of high school chemistry (taken during the past five years) or a satisfactory grade level on the proficiency test administered by the Department. Three lectures per week. Cr 3.

### **CHY 114 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 113. Cr 1.

### **CHY 115 Principles of Chemistry II**

A continuation of CHY 113. 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 113. 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. Corequisite: CHY 115. Cr 1.

### **CHY 231 Analytical Chemistry**

A survey of modern analytical principles and instrumental techniques with emphasis on environmental, clinical, and industrial applications. Two lectures per week. Prerequisite: a grade of C or better in CHY 115. Cr 2.

### **CHY 232 Analytical Chemistry Laboratory**

Quantitative experimental determination by means of gravimetric, volumetric, and instrumental methods. Classical procedures and modern instrumentation, including spectrophotometry, electroanalysis and chromatography. Six laboratory 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). Three lectures per week. Prerequisite: a grade of C or better in CHY 115. Cr 3.

### **CHY 252 Organic Chemistry Laboratory**

Experiments will be performed to illustrate the basic laboratory skills of crystallization, extraction, distillation, and melting and boiling point determinations. Spectroscopic and chromatographic techniques will be demonstrated. Chemical reactions studied include free radical halogenation, nucleophilic substitution, and oxidation and reduction. One recitation and three laboratory hours per week. 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. Three lectures per week. Prerequisite: a grade of C or better in CHY 251. Cr 3.

### **CHY 254 Organic Chemistry Laboratory II**

The course begins with a multi-step synthesis of an antibiotic. The second half of the semester is devoted to organic qualitative analysis, including solubility tests, classification tests, and preparation of derivatives. Interpretation of spectra produced to assist in the process of identification of unknowns. One recitation and three laboratory hours per week. Prerequisite: a grade of C or better in CHY 252. Prerequisite or corequisite: CHY 253. Cr 2.

### **CHY 321 Inorganic Chemistry**

Descriptive chemistry of the inorganic compounds, structure, bonding and ligand field theory. Three lectures per week. Prerequisite or corequisite: CHY 371. Cr 3.

### **CHY 322 Inorganic Chemistry Laboratory**

Preparation and characterization of inorganic compounds. One recitation and three laboratory hours per week. Prerequisite or corequisite: CHY 321. Not offered every year. Cr 2.

### **CHY 345 Polymer Chemistry**

We live in a plastic society. During the past 40 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 ex-

perimental 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 examines the chemistry of natural products. Topics covered include the isolation of natural products from plants, their chemical and spectroscopic characterization, as well as their biosynthesis. The primary focus of the course, however, will be on modern synthetic methods with special emphasis on retrosynthetic analysis and the development of logical synthetic schemes. This course is intended for students who enjoyed introductory organic chemistry and who would like to learn more about the chemistry of biologically important molecules. Prerequisite: a grade of C or better in CHY 253. Cr 3.

### **CHY 361 Biochemistry**

Application of chemical methods and principles to understanding biological processes. Topics include structure and action of proteins, lipids, carbohydrates, enzyme kinetics and mechanisms; and metabolism and energy conversion. This one-semester course provides a survey of the major areas of biochemistry except nucleic acids. Three lectures per week. Prerequisite: a grade of C or better in CHY 253. Cr 3.

### **CHY 362 Biochemistry Laboratory**

Basic experimental methods in modern biochemistry. Experiments include detecting, purifying, and characterizing proteins; analyzing protein structure, and measuring membrane dynamics, enzyme action, and metabolic activity. Techniques include ultraviolet and visible spectrophotometry; ion-exchange, gel, and high-pressure liquid chromatography; centrifugation; electrophoresis, and the use of computers to analyze data and to display and analyze molecular structures. One hour lecture and three hours laboratory per week. Prerequisite: a grade of C or better in CHY 254. Prerequisite or corequisite: CHY 361. Cr 2.

### **CHY 363 Biochemistry II**

Continuation of CHY 361. Topics include selected biosynthetic pathways; photosynthesis; structure and action of nucleic acids, including replication, transcription, translation, the genetic code, genetic regulation and genetic engineering; conformational analysis of biomolecules, and some of the following topics chosen according to student interest: molecular basis of immunity, membrane transport, hormone action, nerve action, motility; and origin of life. Three lectures per week. Prerequisite: a grade of C or better in CHY 361. Cr 3.

### **CHY 364 Biochemistry Laboratory II**

Continuation of CHY 362. 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 362. Prerequisite or corequisite: CHY 363. Cr 2.

### **CHY 371 Physical Chemistry I**

Introduction to the principles of theoretical chemistry: classical and statistical thermodynamics, molecular energetics, quantum phenomena and equilibrium. Candidates for the B.S. degree elect this course in the fall semester of the junior year. Three lectures per week. Prerequisites: a grade of C or better in CHY 115, MAT 152, and PHY 123. Cr 3.

### **CHY 372 Physical Chemistry Laboratory I**

Experiments illustrating material presented in CHY 371, such as thermochemistry, absorption phenomena, and physical properties of gases and liquids. 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**

Additional principles of theoretical chemistry: reaction kinetics, electrochemistry, quantum mechanics and spectroscopy. Three lectures per week. Prerequisite: a grade of C or better in CHY 371. 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 fun-

damental 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. Two lectures per week. Prerequisite or corequisite: CHY 231 and CHY 371 or permission. Cr 2.

### **CHY 378 Instrumental Analysis Laboratory**

Experiments will be performed in low resolution ultraviolet and infrared absorption spectroscopy, flame spectroscopy, and atomic absorption. Prerequisite: a grade 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 401-409 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 490 Senior Research Project**

Open to senior majors. Prerequisites include a 3.0 GPA in chemistry, completion of the Analytical and Organic Chemistry series, and permission of the department. 15 credits maximum. Cr 3-15.

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## **Communication**

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*Chair of the Department:* Rebecca B. Lockridge, 222B Bailey Hall, Gorham

*Professor:* Shedletsky; *Associate Professor:* Lockridge; *Assistant Professors:* Kivatisky, Lasky, Metts, West

Communication is an ancient field of study, tracing its roots back to the Golden Age of Greece when Aristotle studied rhetoric, the art of persuasion. Citizen participation in politics was at the heart of Greek democracy and the power of the spoken word was key to participation. Throughout history, people have been moved to action by influential speakers who communicate effectively.

During the 20th century, communication inquiry began to broaden beyond its traditional focus to include knowledge gained from psychology, sociology, anthropology, and other contemporary fields of study. Scholars examined the effects of communication on attitude formation, interpersonal relationships, group decision making, and organizational behavior. Meanwhile, the introduction of radio, television, and film further expanded the scope of the discipline.

Today, students and faculty consider issues involving gender and communication, multiculturalism, ethics, health communication, media and public policy, and other current topics. Understanding the processes of communication in our world is as important to democracy as public speaking was for the ancient Greeks.

The Department of Communication supports a gender-neutral language policy which discourages use of sexist language in classes, course materials, and at Department events.

### **Communication Students Association (CSA)**

Students are strongly encouraged to become part of one of the most active student organizations on campus. The CSA is a forum for students to discuss a variety of issues pertaining to their classes, their academic work, and their job prospects. The CSA also serves as a formal liaison between faculty and students. Elected representatives from the organization are involved in Department decision making and help guide Department

activities. The CSA plays an integral role in the academic advising of majors, the publication of a Department newsletter and hosting guest speakers. Students interested in becoming a member of CSA should contact the Department secretary at 780-5388.

## ***Programs and Requirements***

### ***Bachelor of Arts***

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 36.

Students must complete the following before continuing in the major: complete Basic Competence and Skills of Analysis components of the Core curriculum prior to taking COM 102J; obtain at least a grade of B or better in COM 102J; obtain at least a grade of C in MAT 120D before taking any other communication courses; and have an overall 2.0 cumulative grade point average.

### ***Major Requirements*** (36 credits)

A student should plan to take at least two academic years to complete the degree after taking COM 102J.

#### Communication Theory Core (9 credits)

COM 102J	Introduction to Communication
COM 300	Research Methods in Communication
COM 495	Theories of Communication

#### Foundations of Communication Theory (15 credits)

COM 265	Intrapersonal Communication
COM 272	Rhetorical Theory
COM 280	Mass Media and Human Interaction
COM 330	Interpersonal Communication
COM 390	Group and Organization Communication

#### Communication Electives (9 credits)

Students can take any three courses offered through the Department of Communication to fulfill this requirement. The communication internship program does not satisfy these credits but can be used toward the 120 credits needed in order to graduate.

#### Senior Seminar (3 credits)

### ***Minor in Communication*** (24 credits)

Students seeking a minor in communication should: complete all the requirements necessary to declare a major in Communication and complete all core and foundation requirements of the major.

### ***Media Arts Concentration***

Communication majors who want a concentration in media arts may apply to this program during their sophomore or junior year. This program is selective; placement is not guaranteed. Applications are available at the Department office. Students must complete the Communication core requirements, the Foundations of Communication Theory requirements, and the Senior Seminar in the major program (27 credits), as well as the requirements for the Media Arts concentration (22 credits). Students may choose either an On-Camera track or a Production track.

#### ***TRACK #1: On Camera***

##### ***Vocal Arts*** (9 credits)

THE 170F	Public Speaking
OR	
THE 270F	Oral Interpretation
THE 224	Acting for the Camera
THE 120	Acting I

##### ***Production*** (6 credits)

COM 296	Video Field Production I
COM 380	Television Studio Production I

#### ***TRACK #2: Production***

##### ***Pre-production*** (3 credits)

THE 134F	Production Management
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##### ***Production*** (12 credits)

COM 296	Video Field Production I
COM 396	Video Field Production II
COM 380	Television Studio Production I
COM 480	Television Studio Production II

*Theory* (3 credits)  
COM 374 Television Criticism  
and Aesthetics

*Media Arts Practicum* (4 credits)

### *Media Arts Practicum Experience*

Students will also become involved with three different types of practicum experience. Four credits are required, with students receiving 1 credit for each production in which they participate.

There are two different types of practica. Students may select the type of production which best suits their interests.

1. COM 492 Video Field Production Practicum: Students will participate in the production of documentary videos and single-camera (film style), on-location work.
2. COM 493 Television Studio Production Practicum: Students will participate in the production of original teleplays and scripts to be produced within a television studio setting.

### *Elective Projects*

Senior Project (up to 6 credits)

Students can elect to produce a special project during their senior year (for example, write a screenplay, produce a short documentary).

Internship Program (up to 15 credits)

Students may work at media organizations for practical professional experience.

*Theory* (3 credits)  
COM 374 Television Criticism  
and Aesthetics

*Media Arts Practicum* (4 credits)

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### **COM 102J Introduction to Communication**

This course is designed to provide students with a conceptual framework of the basic elements of human communication. Students will examine different levels of communication analysis, learn to chart and analyze communication behavior, and discuss the effects of communication on themselves and others. Topics discussed will include communication theory, self-concept, interpersonal communication, nonverbal behavior, small group interaction, and mass communication. Students will be encouraged to adapt communication principles to their various fields of endeavor. Cr 3.

### **COM 242 Media and Children**

This course examines the impact of media presentations on the child audience from a developmental perspective. Special attention is given to the issue of the effects of televised violence and educational or prosocial programming. The readings and discussions cover the various theoretical approaches and models, as well as the major findings reported in the scientific literature. Legal, economic, and policy considerations that surround the debate on children and television are discussed. The course focuses mainly on the critical and empirical study of how young people use the mass media and how the media play a role in their lives. Prerequisite: COM 102J. Cr 3.

### **COM 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 com-

munication. Prerequisite: COM 102J. Restricted to majors only, or permission of the instructor. Cr 3.

### **COM 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. Prerequisite: COM 102J. Restricted to majors only, or permission of the instructor. Cr 3.

### **COM 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. Prerequisite: COM 102J. Restricted to majors only, or permission of the instructor. Cr 3.

### **COM 280 Mass Media and Human Interaction**

Mass Media and Human Interaction concentrates on the history and effects of mass communication in our society. Through readings and independent research,

the student will explore the content and social consequences of our rapidly changing telecommunication technology. Media to be discussed include print, broadcasting, and cable. Prerequisite: COM 102J. Restricted to majors only, or permission of the instructor. Cr 3.

### **COM 284 Introduction to Film**

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. Prerequisite: COM 102J. Cr 3.

### **COM 294 Television Processes**

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. Prerequisite: COM 102J. Cr 3.

### **COM 296 Video Field Production I**

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: COM 102J. Restricted to media arts concentration students except by permission of instructor. Cr 3.

### **COM 300 Research Methods in Communication**

This course introduces the methodology of communication research. The library, laboratory, field, and the computer will be considered. Topics to be studied include formulation of hypotheses; identification of variables; selection of research design; collection of data; and theory construction in a variety of communication contexts. The course is designed to enable students to evaluate critically the literature in communication research. Prerequisite: COM 102J. Cr 3.

### **COM 310 Nonverbal Communication**

A study of the effects of nonverbal factors on the process of human communication. Proxemics, body motion, paralanguage, metacommunication, and other specific areas of nonverbal behavior will be explored and examined. Each student will be required to con-

duct a research project and prepare a scholarly paper related to a particular area of nonverbal communication. Prerequisite: COM 102J or permission of the instructor. Cr 3.

### **COM 320 Intercultural Communication**

This course is primarily concerned with the interrelationship between communication and culture in human interaction. Initially, the course focuses on sensitizing students to intercultural communication variables that influence their interactions. Thereafter, those variables are applied to varied sub-cultures within the U.S. in an effort to expand students' knowledge and sensitivity to such sub-cultures. Course content includes theoretical readings and experiential exercises and discussions. Prerequisite: COM 102J. Cr 3.

### **COM 330 Interpersonal Communication Theories**

A study of the current thinking in interpersonal communication with emphasis upon specific theories of human interaction. Students will engage in behavioral observations, experiential learning activities, group research projects, individual study, and will complete a final project on a selected topic in interpersonal communication. Prerequisite: COM 102J. Restricted to majors only, or permission of the instructor. Cr 3.

### **COM 374 Television Criticism and Aesthetics**

The purpose of this course is to introduce students to the variety of critical approaches applied to the analysis of television content. The course investigates issues in popular culture and mass culture. In addition, the readings review traditional and contemporary television criticism. The final part of the course will provide a critical context for viewing the television medium within the framework of video culture. Prerequisite: COM 102J. Cr 3.

### **COM 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. Prerequisite: COM 102J and junior or senior standing. Cr 3.

### **COM 380 Television Studio Production I**

This course is designed to develop the fundamental skills of visualization, storytelling, and technological awareness in the service of ideas. Course content will explore the procedures and knowledge needed for each stage of production: pre-production, setup and rehearsal, production, and post-production. Coursework will acknowledge the essential blend between practical and theoretical knowledge. A sense of respect for the team process of television produc-

tion and the value of team collaboration will be stressed. Prerequisite: COM 296. CR 3.

### **COM 390 Group and Organizational Communication**

The purpose of this course is to provide students with knowledge about group and organizational communication. Specific topics such as; leadership, conflict resolution, decision making, role behavior, and motivation will be covered in the course. Students will conduct research projects, participate in group activities, and write papers integrating theory with observed behavior. The effects of culture, gender, and politics on group and organizational communication will also be discussed. Prerequisite: COM 300 Research Methods in Communication. Cr 3.

### **COM 394 Theory 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/film-makers, 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. Prerequisite: COM 102J with a minimum grade of B-, or permission of the instructor. Cr 3.

### **COM 396 Video Field Production II**

This course continues to explore the concepts introduced in COM 296. Students will thoroughly 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. Cr 3.

### **COM 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. Prerequisite: COM 102J and junior or senior standing or permission of the instructor. Cr 3.

### **COM 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). Prerequisite: COM 102J and a precise definition of the project and director's consent. Pass/Fail only. Restricted to majors only, or permission of the instructor. Cr var.

### **COM 475 Topics in Organizational Communication**

This course focuses on the cultural/interpretive approach to understanding organizational communication. Students will study and discuss the basic assumptions of naturalistic and critical schools of thought, and will read exemplar essays presenting research and conceptual development within these domains. Topics will include symbolic convergence, account analysis, role performance, organizational power, organizational climate, and socialization. Prerequisites: COM 102J, COM 340, COM 390. Cr 3.

### **COM 480 Television Studio Production II**

This course continues to explore the concepts introduced in COM 380. More complex assignments will be given to hone skills in writing, directing, and producing. Prerequisite: COM 380. Cr 3.

### **COM 484 Topics in Film**

This course is a senior seminar designed to explore a particular topic in film communication. The professor 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. Prerequisite: COM 102J. Restricted to majors only, or permission of the instructor. Cr 3.

### **COM 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). Prerequisite: junior or senior standing and COM 102J. Restricted to majors only, or permission of the instructor. Cr 3.

### **COM 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: COM 102J, COM 280. Restricted to majors only, or permission of the instructor. Cr 3.

### **COM 491 Independent Study**

A concentrated program of research or study on a particular topic of the student's choice, with approval

of a Communication faculty advisor. Periodic conferences with the advisor are required. Prerequisite: COM 102J. Restricted to majors only, or permission of the instructor. Cr 3-6.

#### **COM 492 Video Field Production Practicum**

Students will participate in the production of documentary videos and single-camera, on-location work. This course may be repeated up to a total of 4 credits. Prerequisite: open to majors in media arts concentration only. Cr 0.5 to 1.0.

#### **COM 493 Television Studio Production Practicum**

Students will participate in the production of origi-

nal teleplays and scripts to be produced within a television studio setting. This course may be repeated up to a total of 4 credits. Prerequisite: open to majors in media arts concentration only. Cr 0.5 to 1.0

#### **COM 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. Open to juniors and seniors having at least 12 credit hours of communication coursework. Cr 3.

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## **Criminology**

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*Coordinator:* Jim Messerschmidt, 120 Bedford Street, Portland

*Professor:* Beirne; *Associate Professors:* Fullam, Lehman, Messerschmidt

The bachelor of arts in criminology is a four-year degree offered by the Department of Sociology and Criminology. Criminology is the study of the complex relations among crime, law, and society. Criminologists have traditionally sought to understand why particular individuals or groups engage in criminal activities. Recently, however, the study of crime has been extended to the structures and processes that define certain behavior as criminal and to the ideas, ideals, and ideologies embedded in definitions of crime that are expressed in our everyday perceptions of crime, criminality, and crime control.

The curriculum in criminology is a rigorous series of courses that provides students with a comprehensive knowledge of crime and crime control in a 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 therefore be taken in sequence. Elective courses enable students to place their criminological interests in a broader sociological perspective.

Many students in the program are interested in law studies or in social service occupations related to criminal or juvenile 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.

#### *Alpha Kappa Delta*

Juniors and seniors who have demonstrated an interest and involvement in sociology or criminology who have completed at least four sociology or criminology courses, and who have accumulated at least a 3.0 grade point average in sociology or criminology courses at the University are eligible for nomination to Alpha Kappa Delta, the national sociology scholarship and honor society.

#### *Student Involvement*

Student involvement is high priority for the Department. Students are involved in the research projects of the Department as well as the everyday administrative and advising life of the Department. Representatives of the Sociology Students' Association and the Criminology Students' Association are involved in all Departmental activities and decisions as full voting members of the Department. These student representatives are elected by members of the Student Associations each April, although vacancies sometimes occur during the year. Students who are interested in this kind of involvement are encouraged to talk to Department faculty.

#### *Internships*

The Department of Sociology and Criminology offers a strong and on-going internship program. The expanded program helps place students in community agencies and organizations, including neighborhood organizations and a variety of agencies dealing with youth services. Credit internships actively seek to bring together student academic work and community involvement. Students interested in an internship placement are encouraged to meet with Professor Fullam, internship coordinator.

#### *Programs and Requirements*

##### *Bachelor of Arts*

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 40.

The criminology major consists of 28 hours in required courses and 12 hours of electives. Elective courses should be selected in consultation with the student's advisor.

Students are reminded that they must complete the requirements of the College of Arts and Sciences and the University Core curriculum.

Required Courses			Hours
CRM	215J	Criminology	3
CRM	216	White-Collar Crime	3
CRM	220	Social Inquiry	4
SOC	317	Gender and Crime	3
SOC	336	Law and Society	3
SOC	375	Deviance	3
CRM	400	Punishment and Discipline	3
CRM	401	Comparative Criminology	3
CRM	402	Senior Seminar in Criminology*	3
			<hr/> 28 hours

\*As the Senior Seminar course cannot be offered until spring of 1993, CRM 400 and CRM 401 will be considered the "exit" courses for the major.

Elective Courses (12 hours)			
CRM	217	Crime in Maine	3
SOC	300	Sociological Theory	3
CRM	301	Criminological Theory	3
SOC	310	Social Change	3
SOC	312	Inequality and Power	3
SOC	315	Self and Society	3
SOC	337	Juvenile Justice	3
CRM	340	Criminal Law	3
CRM	350	Special Topics	3
SOC	350	Urban Society	3
SOC	355	Social Structure and Politics	3
SOC	357	Organization: Individual and Society	3
CRM	373	Pornography and Violence	3
SOC	374	Mental Health and Illness	3
SOC	380	Sociology of Violence	3
CRM	390	Independent Projects	3
CRM	395	Internship	4-6
CRM	412	Research in Criminology	3

### *Major Credit and Grade Policy*

There are prerequisites for most major credit courses. See the departmental course listings for particulars. 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. The coordinator of the program routinely requests faculty teaching major courses to submit a list of those students doing less than C work at mid-semester. These students are strongly encouraged to meet with their professor, and may be required to meet with the coordinator for counseling.

### *Curriculum Summary and Guide*

The criminology curriculum is a series of structured and integrated case experiences of the student. The curricular sequence is as follows:

Year	Required Courses	Elective Courses
I	Introduction to Sociology Core requirements	
II	Complete Foundation requirements Criminology (fall or spring) Social Inquiry (spring) White-Collar Crime (fall or spring)	
III	Gender and Crime (spring) Law and Society (fall) Deviance (spring)	Electives (fall or spring)
IV	Punishment and Discipline (fall) Comparative Criminology (fall) Senior Seminar (spring)	Electives (fall or spring)

### *Declaration of Major*

Consistent with the general policies of the College of Arts and Sciences, the criminology program does not normally accept formal declaration of the major before the second semester of the sophomore year.

Students in or beyond the second semester of their sophomore year should complete a major declaration form. At the same time, their record will be evaluated and a final, binding version of their major requirements will be written. To be accepted as a formal major, the student must have been at the University for at least one full semester, have a GPA of no less than 2.33, and have demonstrated satisfactory performance in major courses.

Students are invited, before this time, to list their major with the Registrar and to be advised through the Criminology Office. This listing, however, should be considered a declaration of intent.

Transfer students must also formally declare their major even though they enter with junior or senior standing.

Supplementary information is published each semester by the Criminology 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: Coordinator, Criminology Program, University of Southern Maine, 96 Falmouth Street, Portland, Maine 04103 or telephone: (207) 780-4105.

### *Minor in Criminology*

The number of hours required for the minor: 19.

Required Courses			Hours
CRM	215J	Criminology	3
CRM	216	White-Collar Crime	3
CRM	220	Social Inquiry	4
Choose one of the following:			
SOC	336	Law and Society	
CRM	400	Punishment & Discipline	
CRM	401	Comparative Criminology	
Electives — 6 hours:			
Choose any two CRM courses or SOC 336 or SOC 375			

### *Transfer Students*

Transfer students and students contemplating transfer into the criminology program are urged to meet with department faculty as early as possible for an evaluation of their progress and their requirements in the major.

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### *Required Courses*

#### **CRM/SOC 215J Criminology**

This course focuses on the difficult question, "what is crime?" and on problems concerning the measurement and distribution of crime. The criminology course examines some of the popular misconceptions and myths about crime, the creation and utility of official and unofficial crime statistics, popular presumptions about the causes of crime, and the institutional responses to crime in our society. The course is also listed as SOC 215J. Prerequisite: SOC 100J or permission of instructor. Cr 3.

#### **CRM/SOC 216 White-Collar Crime**

This course provides an analysis of the different sociological perspectives on white-collar crime as well as focusing on some specific types of white-collar crime: organized crime, occupational crime, corporate crime, political crime, and state terrorism. The course also discusses what can be done to curb these types of white-collar crime. Prerequisite: CRM/SOC 215J. Cr 3.

#### **CRM 220 Social Inquiry**

The major emphasis of this course is the formulation and conceptualization of problems, the logic of inquiry, and research design. Students will learn to

read and to evaluate current research, will become acquainted with major modes of inquiry and methods of research, and will become acquainted with bibliographic resources. This course is designed to provide students with a firm foundation for further study in social science, particularly criminology. This course is not open to freshmen. Prerequisite: successful completion of, or concurrent enrollment in, CRM/SOC 215J, or permission of instructor. Cr 4.

#### **CRM/SOC 317 Gender and Crime**

This course provides a feminist analysis of gender as related to the criminality of both males and females. The course focuses on gender and inequality, the gender bias of criminological theory, and the role gender plays in various forms of criminality, from interpersonal violence to syndicated and corporate crime. Prerequisite: one 200-level SOC course or CRM/SOC 215J or permission of instructor. Cr 3.

#### **SOC 336 Law and Society**

An examination of the interrelationships between law and society, focusing on law, custom, and morality as well as law in relation to social goals. Specific examples of how law functions in the context of the social structure will be used to highlight the major



theoretical models used traditionally in this area. Prerequisite: one 200-level SOC course or CRM/SOC 215J or permission of instructor. Cr 3.

### **SOC 375 Deviance**

The origin and nature of socially disapproved behavior. Analysis of societal interpretations of and responses to the deviant. Prerequisite: one 200-level SOC course or CRM/SOC 215J or permission of instructor. Cr 3.

### **CRM 400 Punishment and Discipline**

This course distinguishes between different forms of discipline, such as punishment, therapy, conciliation, and repression. It traces the development of punishment as the definitive style of discipline in modern societies. Specific historical emphasis is given to the emergence of the doctrine of the rule of law. The development of the modern police and the modern prison are traced as responses both to the necessity of social control and to crises generated by social disorder and political instability. Offered fall semesters. Prerequisite: CRM/SOC 215J and formally declared Criminology major with senior standing or permission of instructor. Cr 3.

### **CRM 401 Comparative Criminology**

This course focuses on the application of American 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. Prerequisite: CRM 400 or permission of instructor. Cr 3.

### **CRM 402 Senior Seminar in Criminology**

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. Prerequisite: CRM 401. Cr 3.

### *Elective Courses*

### **CRM 217 Crime in Maine**

An introduction to crime and penal policies in Maine, including official and unofficial crime statistics; common crimes; white-collar, corporate, and environmental crimes; and selected aspects in crime control. The course presents inter-state comparative analysis, and several guest lectures by Maine speakers. Prerequisite: CRM/SOC 215J or permission of instructor. Cr 3.

### **SOC 220 Self and Society**

This course explores the emergence of self as an intersection of biography, history and social structure. Emphasis is placed on the relationship between intimate definitions of the individual and the social structure within which these definitions are constructed. Topics include but are not limited to the power of social groups, charisma, normality and the politics of experience, the social construction of childhood, and the social construction of gender. Prerequisite: SOC 100J or permission of instructor. Cr 3.

### **SOC 240 Comparative Political Ideologies**

After a presentation and comparison of 20th century political ideologies and their origins, the influence of these value systems on political action and on current sociological paradigms will be emphasized. Prerequisite: SOC 100J or permission of instructor. 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 socio-cultural settings within which these theories developed. Prerequisites: one 200-level SOC course or permission of instructor. Cr 3.

### **CRM 301 Criminological Theory**

This course focuses on the development of criminological theory from 1830 to the 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/SOC 215J or permission of instructor. Cr 3.

### **SOC 310 Social Change**

Analysis of sociocultural factors related to social change and the dynamics of the change process. Prerequisite: one 200-level SOC course or permission of instructor. Cr 3.

### **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: one 200-level SOC course or permission of instructor. Cr 3.

### **SOC 337 Juvenile Justice**

Examination and analysis of juvenile justice philosophies, processing, and treatment, with an emphasis on historical and comparative materials. Prerequisite: one 200-level SOC course or permission of instructor. 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. Prerequisite: CRM/SOC 215J or permission of instructor. Cr 3.

### **CRM 350 Special Topics**

Specially developed courses exploring areas of interest and concern in depth. Among those courses currently considered are criminal law, organized crime, occupational crime, and violent crime. Offered as resources permit. These courses can be applied to the nine-hour elective hours required in the criminology major. Cr 3.

### **SOC 350 Urban Society**

This course focuses on the sociological study of urban existence, urban policy, and planning. Urban life is examined in context of the political, economic, and organizational aspects of contemporary American society. Topics include approaches to the study of urban society, varieties of urban experience, use of urban space, urban institutions and social problems, selected issues in planning, and policy making. Comparative materials on urban life of other countries are used when appropriate. Prerequisite: one 200-level SOC course or permission of instructor.

Cr 3.

### **SOC 357 Organization: Individual and Society**

Examination of the nature and types of formal organization, the relationships between them, the larger social context of which they are a part, and their internal structure. Prerequisite: one 200-level SOC course 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 to the influence of culture on the definition of illnesses, the relationship between social factors and illness, and the social context of treatment. Prerequisite: one 200-level SOC course or permission of instructor.

Cr 3.

### *Optional Courses*

#### **CRM 390 Independent Projects**

Individually arranged reading and/or research for juniors and seniors concentrating on a particular subject of concern under the advice and direction of a faculty member. Apply to program coordinator. Cr 3.

#### **CRM 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 for upper-level social science majors with substantive background or 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. Offered each semester. Contact departmental internship coordinator for details.

Cr 4 to 6.

#### **CRM 412 Research In Criminology**

Independent or group-organized research project or activity under the direction of a faculty member. Open to advanced students with some training or experience in research methods. Apply to the program coordinator.

Cr 3.

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## **English**

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*Department Office:* 3 Luther Bonney, Portland

*Professors:* Ashley, Carper, Gish, Jaques, Rosen, Slavick; *Associate Professors:* Abrams, Benedict, Carner, Coffin, McGrath, Reuter, Selkin; *Assistant Professors:* Castiglia, Cole, Gilmore, Peters, Rusch, Swartz

In the study of literature, students learn to appreciate the possibilities of language for serious and often moving expression. Through writing practice, students learn to use language effectively.

The USM English major is designed to lead students toward a sensitive understanding of English, American, and other literature written by men and women of the past and present who have memorably expressed their personal visions and the ideas of their times. It is structured to provide insights into critical and theoretical problems encountered by all who wish to view literature from diverse perspectives. The major also provides students with the opportunity to participate in the creative process, developing their talents through courses and workshops in writing fiction, poetry, and drama.

Literature courses offered in the Women's Studies Program and the Foreign Languages and Classics Department enhance the English major. An Internship in Professional Writing helps students work locally to develop skills as writers, editors, and reporters. Also, USM's foreign exchange programs and the Department's own exchange program with Nijmegen University in The Netherlands offer rewarding opportunities for studying abroad.

English majors have careers in many areas, usually in business, teaching, and other professions. More and more majors are entering medical, law, and academic graduate schools, having found that the breadth of experience English study provides prepares them to work successfully in diverse fields. USM English majors have been strong candidates for admission to the country's finest graduate English programs.

Students not majoring in English who want to satisfy the Humanities Core curriculum requirement in English should begin with English 120H, except when English 120H is waived. Courses numbered below 120 cannot be used to satisfy the Humanities Core curriculum requirement.

## ***Programs and Requirements***

### ***Bachelor of Arts***

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

The English major begins with a course in writing (100 or 101) and an introduction to the study of literature (120). The student then selects more advanced English courses (and up to 6 credits in approved courses of other departments) to complete the 48-credit major requirement.

While the Department does not require courses in other disciplines, majors are strongly advised to develop a reading proficiency in a foreign language, particularly if they envisage applying to graduate programs.

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. Within the first 2½ years, majors should have completed not only ENG 120 but also ENG 262 and 263 or 264 (genre courses) and a Classical or Biblical Backgrounds course.

1. ENG 100C or 101C or waiver; ENG 120H (0 credits toward major)

2. Introduction for Majors (6 credits required)

ENG 262 Poetry (required of all majors)

ENG 263 Fiction

ENG 264 Drama

The Introduction for Majors requirements may be fulfilled by taking all three genre courses. However, majors who do not take the Fiction course (263) or the Drama course (264) must take an upper-level course in the omitted genre. For Drama, a course other than Shakespeare must be selected.

3. Writing Courses (3 credits required)

ENG 306 Business and Report Writing and ENG 307 Technical Writing may not be used to satisfy this requirement.

4. Classical and Biblical Backgrounds (3 credits required)

5. Linguistics and Related Courses (3 credits required)

6. Criticism Courses (3 credits required)

7. Major Figures (6 credits required)

The two major figures courses should be selected as follows: 3 credits from Shakespeare (ENG 360 or 361); 3 credits from Chaucer (ENG 351), Milton (ENG 356), or another major figure or figures course.

8. Periods of Literature Courses (15 credits required)

At least one course from five of the following six areas is required: Continental and World Literature; Medieval Period; Renaissance; Neo-classical and Romantic Periods; 19th-Century British and American Literature; Modern Literature. Major figures courses other than Shakespeare also fulfill Periods of Literature requirements.

9. Electives (credits in English and other approved courses numbered 200 and above to complete the 48-credit major required)

10. A senior seminar is required of all graduating majors.

*Note:* The requirements of the English major program may be waived in exceptional cases in favor of a Self-Designed Major that is approved in advance by the English Department Curriculum Committee.

### ***Prerequisites and Course Waivers***

ENG 100C or 101C, or an equivalent or waiver, is a prerequisite for any English language or literature course, including ENG 120H. For English-major and general-interest courses numbered 130 to 199, ENG 100C or 101C (or an equivalent or waiver) and ENG 120H or permission of the instructor are prerequisites. For courses numbered 200 to 499, prerequisites are ENG 100C or 101C (or an equivalent or waiver), and ENG 120H (or an equivalent or waiver). Certain advanced courses, as indicated in the course listings, and all Independent Study courses require the instructor's permission.

*Note:* 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 may be waived for a few exceptional students who pass a qualifying examination 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 which gives more detailed information, including texts and writing requirements, than the catalog can accommodate. Students are urged to get 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.

### ***Minor in English***

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

The Department offers an English minor which requires 18 credits of upper-level courses in a program planned with an English faculty advisor and approved by the director of English Minor Programs. The goal of the program is to give students not simply a collection of courses, but a coherent experience with English courses chosen to suit their needs and interest, whether in literature generally, creative writing, American literature, language and composition, or another area of study.

Each program must meet these specific requirements beyond ENG 100C/101C and ENG 120H (or waivers); a 200- or 300-level writing or language/linguistics course; three 200- or 300-level literature courses (one must focus on literature before 1800, one after 1800); one 300- or 400-level course that examines in depth a particular writer or writers, or a particular subject.

Further information about the minor is available in the English Department office.

### *Internships, Job Opportunities, and Exchange Programs*

Students of English are encouraged to take advantage of a variety of internship opportunities as part of their program. Internships allow academic credit for work experiences that use and enhance English skills. Also, students are invited to discuss job opportunities for those with training in English.

English majors are encouraged to apply for semester or year-long exchanges in English departments at King Alfred's College, Winchester, the London Program, or Nijmegen University, The Netherlands.

### **ENG 100C College Writing**

Classes meet regularly to analyze professional and student writing as a way of sharpening awareness of how to use language effectively. The writing assignments encourage students to apply the principles discussed in class to their own work. Students may not take both ENG 100C and 101C for credit. This course cannot not be used to satisfy a humanities requirement. Prerequisite: writing proficiency. Every year. Cr 3.

### **ENG 101C Independent Writing**

English 101C is offered as an alternative to English 100 for students who prefer to define their own writing goals and work toward them with the instructor's guidance. Classes meet regularly for the first few weeks of the semester and occasionally thereafter, but the course is conducted primarily in weekly individual conferences. Independent Writing is not a remedial course; it addresses writing mechanics to some extent, but emphasizes style, organization, and development. The major challenge of the course is the self-discipline the students will need to work independently. Prerequisite: writing proficiency. Every year. Cr 3.

### **ENG 102 Term Paper Writing**

This course will teach the student to write a research paper. The choice of subjects will be worked out by instructor and student. The student will learn how to develop a topic, prepare a working bibliography, become familiar with library resources, take notes in an orderly and meaningful fashion, and then write a final paper after having polished a number of rough drafts. Cr 1.

### **ENG 110E Straight and Crooked Thinking**

The analysis, interpretation, and evaluation of various kinds of arguments and ways to reach logical decisions, with critical tracts, speeches, literary essays, scientific papers, and magazine articles. This basic course employs a new non-symbolic approach to practical reasoning expressed in natural language; its emphasis is on direct application to realistic cases. Exercises and readings are designed to aid undergraduates in reports, essays, and term papers. The

materials for critical analysis have a broad appeal for future lawyers, administrators, executives, business people, and scholars. Regular oral reports; brief written exercises in critical reasoning and analysis; final examination based on actual specimens of contemporary argument. Prerequisite: ENG 100C/101C or permission of instructor. Cr 3.

### **ENG 120H Introduction to Literature**

A general introduction to the various literary genres—poetry, the short story, drama—which will include a study of critical terminology, close textual reading, and practice in writing. Prerequisite: ENG 100C or 101C or waiver. Every year. Cr 3.

### **ENG 131 The Literature of Business**

The drama of business as reflected in the fiction of important writers like Twain, Norris, Dreiser, and Warren. The course will focus on significant moments and problems in America's economic history and on the way these have been represented by writers who have concerned themselves with subjects like the exploitation of the West, the Robber Barons, manipulation in the stock market, and cycles of economic euphoria and disillusionment. Cr 3.

### **ENG 150 Topics in Literature**

A selection of courses varying in content from term to term. Under consideration for coming semesters: Utopian Literature, Radicalism and Revolt in Fiction, Feminism in the World Novel, Native American Literature, Popular Semantics, and Literature of the 60s. Descriptions of current offerings are available in the English offices. More than one section may be taken for credit. Cr 3.

### **ENG 262 Poetry**

An intensive course in the close reading of many of the most significant poems in English. Attention will be given to important elements of poetry, including versification and the use of metaphor; characteristics and conventions of poetry written in different periods, early and contemporary, will also be explored. Required of English majors and recommended for all students seeking to understand a principal area of our cultural heritage. Every year. Cr 3.

### **ENG 263 Fiction**

A survey of various forms and techniques of fiction, typically beginning with oral storytelling and traditional tales, but concentrating on types of narrative developed in the nineteenth and twentieth centuries, e.g., symbolic realism, the fable, magical realism, metafiction, and other experimental forms. The course also examines the distinction between "fiction" and "non-fiction" and between "literature" and popular genre fiction. Every year. Cr 3.

### **ENG 264 Drama**

Significant representative plays from several periods, including the contemporary, will be studied. Conventions of stagecraft at different points in the drama's history will be explored, and attention will be given to how dramatic and literary techniques, like the use of action, stage effects, and dialogue, contribute to the often profound meanings that plays can convey. Every year. Cr 3.

### *Writing Courses*

#### **ENG 201F Creative Writing**

An introduction to the principles and practice of writing fiction, poetry, and drama. Emphasis is on fresh observation and meaningful selection of concrete details and their uses in the different genres. Recommended for beginners. Prerequisites: ENG 100C or 101C and ENG 120H. Every year. Cr 3.

#### **ENG 300F Fiction Writing**

A course for those who have already, in a course such as Creative Writing or on their own, 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 year. 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 careful, thoughtful observation and a preference for concrete details to convey emotional meaning, 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 and exercises that stress the elements of poetry, as well as on the development of personal approaches. Suggested preparation: ENG 201F. Every year. Cr 3.

#### **ENG 302F Fiction Workshop**

An advanced course requiring the completion of short stories or a substantial part of a novel. Prerequisites: ENG 300 and instructor's permission. May be repeated for 3 additional credits with instructor's permission. 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 manu-

script or portfolio of poems will be the basis for the course grade. Prerequisite: ENG 301F or instructor's permission. May be repeated for 3 additional credits with instructor's permission. Cr 3.

#### **ENG 304 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 a one-act play. Prerequisite: THE 150H. This course is also listed as THE 250. Cr 3.

#### **ENG 305 Advanced Essay Writing**

Study of various forms of discourse with concentration on exposition. Provides experience in logical analysis and in the uses of persona, appeals to the reader, stylistic and fictional devices, and other strategies. Prerequisite: a grade of B in ENG 100C or 101C, or permission of the instructor. Every year. Cr 3.

#### **ENG 306 Business and Report Writing**

Primarily for juniors and seniors majoring in business administration. Training in clear and effective writing of formal reports, business communications, and related materials. Every year. Cr 3.

#### **ENG 307 Technical Writing**

A skills course to prepare students for writing technical communication required in business, industry, or government occupations. Students will learn how to design technical reports by following a systematic procedure or writing process. Audience analysis, statement of purpose, selection and arrangement of report materials, text preparation, and editing procedures will be mastered in the writing of technical business letters, memoranda, and informal and formal reports. In addition to written assignments, students will give an oral report at the conclusion of the course. Prerequisite: ENG 100C. Cr 3.

#### **ENG 400 Independent Study in Creative or Expository Writing**

By instructor's permission. See department for application form. Cr var.

### *Journalism Courses*

#### **ENG 309 Newswriting**

This course includes news and feature writing with intensive practice in journalistic-writing techniques, accuracy, judgment, and style. Every year. Prerequisite: ENG 100C/101C. Cr 3.

#### **ENG 310 Advanced Newswriting**

A continuation of Newswriting. Every year. Cr 3.

#### **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 department. Cr 3.

#### **ENG 410 Independent Study in Journalism**

By instructor's permission. See department for application form. Cr var.

## Classical and Biblical Backgrounds

### ENG 315 Ancient Masterpieces

A study of selected major works of classical times which will provide students with a background for understanding the most influential books of our culture. Included are Homer, Plato, Greek dramas, Virgil. HON 101 The Ancient World satisfies the English Department requirement for this course. Every year. Cr 3.

### ENG 316 The Bible

The Bible, the single most influential work (or group of works) in Western culture, will be considered as a literary text. Under such headings as plot, character, genre, theme, and symbol, the Old and New Testaments in the Authorized or King James translation will be examined, with emphasis on the books that have had the greatest literary influence (e.g., Genesis, Exodus, Job, Matthew, Luke, Revelation). The course will also discuss the history of the text, translation, and influence. Every year. 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 284H The Tragic Hero in Ancient Literature

Intensive reading of selected plays in English translation by Aeschylus, Sophocles, Euripides, Seneca; discussion, papers. Cr 3.

The following Foreign Languages and Classics courses carry English major credit as electives. Note that these courses cannot count both toward the English major and toward the Core curriculum requirement.

- CLA 285I Classical Mythology
- CLA 291I The Golden Age of Greece
- CLA 292I Rome, from Republic to Empire
- FRE 281H Masterpieces of French Literature I
- FRE 282H Masterpieces of French Literature II
- FRE 283H Contemporary French Thinkers
- GER 281H The German Novelle
- RUS 281H Russian Literature in English Translation
- SPA 281H Masterpieces of Spanish American and Brazilian Literature

For descriptions, see Foreign Languages and Classics section of this catalog.

Up to six hours of specific courses offered by such other CAS departments as History, Theatre, and Philosophy may be elected for English major credit.

## Linguistics and Related Courses

### 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 the Old, Middle, and Modern English and the forces which shaped these stages. Some methods of modern linguistic science are utilized in examining current usage. Change and development of the language are emphasized. Every year. Cr 3.

### ENG 331 Modern Grammars

Designed to acquaint students with the three most common forms of English grammatical analysis: traditional, structural, and 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. 2 year cycle. Cr 3.

### ENG 332 Introduction to Linguistics

A general introduction to modern linguistic science, including studies in the development of language, phonology, morphology, the dictionary, and varieties of English usage. Also examined are the various grammatical philosophies and their methods—traditional, structural, and transformational. 2 year cycle. Cr 3.

### ENG 333 Structural Linguistics and Culture

The course analyzes the languages and culture (art, religion, poetry) of pre-literate societies, particularly the American Indian. Cr 3.

### ENG 334 Semantics

Interpretation of literature by means of analysis of the language used. Recommended for prospective teachers of literature and English. 2 year cycle. Cr 3.

### ENG 335 Discovering Grammatical Structure

This course prepares the student to find and understand the grammar and structure of any language. Includes work in American Indian languages, such as Passamaquoddy of Maine, and Maine Indian place names. 2 year cycle. 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 train students to translate elementary prose (*Apollonius*, *the Anglo-Saxon Chronicle*, etc.). Later weeks introduce the students to alliterative poetry. Students will translate "The Dream of the Rood," "The Seafarer," and passages from *Beowulf*. This course will satisfy either the Linguistic requirement or Medieval requirement for the major. 2 year cycle. Cr 3.

### ENG 430 Independent Study in Linguistics

By instructor's permission. See department for application form. Cr var.

### ENG 431 Seminar in Linguistics

An advanced course focusing on specialized problems in language study. Emphasis is on the application of various scholarly approaches to important, limited subjects. Cr 3.

## Criticism Courses

### ENG 340 History of Literary Criticism

A study of the great literary critics, their methods and approaches, from Plato and Aristotle to the present day. Among the many figures included are Sidney, Johnson, Coleridge, Arnold, and T.S. Eliot. 2 year cycle. 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 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 year. Cr 3.

### ENG 342 Topics in Contemporary Theory

This course studies in-depth selected theoretical approaches to literature. 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). Cr 3.

### ENG 440 Independent Study in Criticism

By instructor's permission. See department for application form. Cr var.

### ENG 441 Seminar in Literary Criticism

An advanced course focusing on specific problems or historical movements in literary criticism. Emphasis is on applying various scholarly approaches to important, limited subjects. Typical subjects might be myth and myth criticism, psychoanalytic theory as myth; feminist criticism and the canon; gender and genre studies; literary criticism and social authority. Cr 3.

## Continental and World Literature

### ENG 320 Continental Masterpieces

A study of some of the masterworks of medieval and renaissance culture, including Dante's *Divine Comedy* and Cervantes' *Don Quixote*. Every year. Cr 3.

### ENG 321 Dante

This course on Dante and his poetic milieu begins with the troubadour poets of Provence and Sicily, then considers the Italian "stilnovisti" (Guinizelli and Cavalcante), and finally turns to Dante's major poems and literary criticism. Texts used will be bilingual so that reference can be made to the Italian originals of Dante's work. 2 year cycle. Cr 3.

### ENG 322 Modern Autobiography

The concept of the self has undergone critical changes in the history of autobiography. Many modern autobiographical writers have completely dispensed with traditional notions of the self, expanding the genre and giving it a strong literary focus. By comparing a selection of autobiographical texts by modern authors like Rilke, Stein, Barthes, and H. D. with

more traditional forms of autobiography, the course investigates the historical vicissitudes in the conceptualization of a "self." 2 year cycle. Cr 3.

### ENG 324 Arthurian Romance

A survey of medieval romances (originally written in English and continental languages) concerned with King Arthur and his knights and the social values represented by the Round Table. Students will examine romance as a literary genre and Arthur as a mythological and historical figure. Texts will include (but are not limited to) the Arthurian romances of Chretien de Troyes, a version of the Tristan legend, *Sir Gawain and the Green Knight*, and *Malory's Morte Darthur*. Later treatments of the Arthurian material may also be discussed. Non-English and regional Middle English texts are taught in translation. 3 year cycle. Cr 3.

### ENG 325 Medieval Epic and Romance

The development of medieval traditions of epic and romance with readings of major works from England, Germany, France, Spain, and Italy (in translation). 3 year cycle. Cr 3.

### ENG 326 Satire

A study of the principles of satire to define satire as a mode. The course focuses on various literary genres from classical through the modern era and, to a lesser extent, in film and graphic arts, emphasizing works selected from such prominent satirists as Aristophanes, Petronius, Boccaccio, Chaucer, Erasmus, More, Rabelais, Ben Jonson, Swift, Pope, Austen, Burns, Breughel, Hogarth, and others. 3 year cycle. 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, and Isaac Babel. 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. 2 year cycle. Cr 3.

### 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, and Christina Stead. Prerequisite: junior class standing or permission of the instructor. 2 year cycle. 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, and Pinter. The course will emphasize the experience of drama as much as possible by viewing video productions of several plays. Every year. Cr 3.

### **ENG 420 Independent Study in Comparative Literature**

By instructor's permission. See department for application form. Cr var.

### **ENG 421 Seminar in Comparative Literature**

An advanced course focusing on individual writers or particular literary themes or problems. Emphasis is on applying various critical and scholarly approaches to important, limited subjects. Typical subjects: Continental humanism, Dante, Continental influences on English literature. Cr 3.

### *Medieval Period*

### **ENG 350 Medieval English Literature**

A survey of genres popular from the twelfth to the fifteenth centuries (including debates, lyrics, romances, allegories, drama), with emphasis on the literature of fourteenth-century England. Major readings will include Chaucer's *Troilus*, the *Pearl*, and *Sir Gawain and the Green Knight*. 3 year cycle. Cr 3.

### **ENG 351 Chaucer and the Medieval World**

An exploration of Chaucer's historical, philosophical, and literary world through his major comic narrative, *Canterbury Tales*. Every year. Cr 3.

### **ENG 352 Medieval Drama**

This course will introduce the theatre of the medieval world, which ranges from the liturgical, ritual drama of the church, to the morality plays, performed by traveling companies, and the mystery cycles, produced by civic and guild pride in the 15th century. Attention will be paid to the aesthetic and theological principles underlying this conjunction of farce and high seriousness in the plays as well as to distinctly medieval techniques of staging and production. 3 year cycle. Cr 3.

### **ENG 450 Independent Study in Medieval Literature**

By instructor's permission. See department for application. Cr var.

### **ENG 451 Seminar in Medieval Studies**

An advanced course focusing on individual writers or particular literary themes or problems. Emphasis is on applying various critical and scholarly approaches to important, limited subjects. Cr 3.

### *Renaissance*

### **ENG 355 The English Renaissance**

A study of the principal writers of the English Renaissance exclusive of Shakespeare, with emphasis on

major figures like Spenser, Donne, and Milton, but with some attention to other figures. Every year. Cr 3.

### **ENG 356 Milton**

Study of Milton's major poetry and selected prose with attention to critical and historical background. Every year. Cr 3.

### **ENG 357 British Drama to 1642**

Shakespeare's predecessors, contemporaries, and followers to 1642. 3 year cycle. Cr 3.

### **ENG 455 Independent Study in Renaissance Literature**

By instructor's permission. See department for application form. Cr var.

### **ENG 456 Seminar in Renaissance Studies**

An advanced course focusing on individual writers, or particular literary themes or problems. Emphasis is on applying various critical and scholarly approaches to important, limited subjects. Typical subjects: the metaphysical poets, Elizabethan prose fiction. Cr 3.

### *Shakespeare*

### **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. The division of plays within the two courses is largely arbitrary. Its intent is to permit students to take a second course in Shakespeare without repeating the readings of the first course. Neither course is introductory or prerequisite to the other. The main difference is that ENG 360 often includes a section on Shakespeare's history plays, while ENG 361 includes a section on Shakespeare's "romances" (dramatic fairy tales). Both courses include tragedies and comedies. Each course: Cr 3.

### **ENG 460 Independent Study in Shakespeare**

By instructor's permission. See department for application form. Cr var.

### **ENG 461 Seminar in Shakespeare Studies**

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: allegorical elements in Shakespeare's plays, Shakespeare and the daemonic. Cr 3.

### *Neoclassical and Romantic Periods*

### **ENG 365 Eighteenth-Century Literature**

A study of major works in the Restoration and eighteenth century with attention to their cultural and historical contexts. Although the specific content of this survey course will change from year to year, emphasis will be placed upon representative figures such as Behn, Dryden, Heywood, Defoe, Richardson, Swift, Pope, Montague, Fielding, Lennox, Johnson, and Burney. Cr 3.



### **ENG 366 Studies in the Eighteenth Century**

The purpose of this course is to examine in some detail an important relationship between literature and culture in the Restoration or eighteenth century. Typical topics include The Quarrel Between the Ancients and the Moderns; Otway and Domestic Tragedy; The Literature of Travel; The Eighteenth-Century Sublime; The Gothic Novel; Periodicals and Popular Culture; The Emergence of Criticism; Shaftesbury to Burke. Although English 365 is not a prerequisite, it is recommended. Cr 3.

### **ENG 369 The Earlier English Novel**

The principal novelists from Defoe through Smollett and Burney. 2 year cycle. Cr 3.

### **ENG 371 Major Romantic Writers**

A study of the major British poets of the Romantic period (1790-1832). Readings will be selected from among the works of Blake, C. Smith, Wordsworth, Coleridge, Clare, Keats, Byron, and Shelley. 2 year cycle. Cr 3.

### **ENG 373 Topics in Romanticism**

The 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 from semester to semester, it will generally include a mixture of literary and cultural forms, including poetry, fiction, non-fictional 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. 2 year cycle. Cr 3.

### **ENG 465 Independent Study in the Neoclassical Period**

By instructor's permission. See department for application form. Cr var.

### **ENG 466 Seminar in Neoclassical Studies**

An advanced course focusing on individual writers or particular literary themes or problems. Emphasis is on applying various critical and scholarly approaches to important, limited subjects. Typical subjects: Swift, the poetry of Alexander Pope, Thomas Gray, and the poets of sensibility. Cr 3.

### **ENG 470 Independent Study in the Romantic Period**

By instructor's permission. See department for application form. Cr var.

### **ENG 471 Seminar in Romantic Studies**

An advanced course focusing on individual writers or particular literary themes or problems. Emphasis is on applying various critical and scholarly approaches to important, limited subjects. Typical subjects: William Blake, the Gothic novel, Wordsworth and Coleridge. Cr var.

### **Nineteenth-Century British and American Literature**

#### **ENG 375 The Victorian Novel**

The principal novelists from Austen to Hardy. 2 year cycle. Cr 3.

#### **ENG 376 Eminent Victorian Writers**

Major writers of the Victorian era, such as Emily Bronte, Tennyson, Browning, Arnold, Dickens, George Eliot, Ruskin, Pater, Hardy and Wilde. 2 year cycle. Cr 3.

#### **ENG 377 Victorian Poetry and Prose**

A study of the major poets and non-fiction prose writers of the Victorian period, such as Tennyson, the Brownings, Arnold, the Rossetis, Meredith, Morris, Swinburne, Hopkins, Hardy, Carlyle, Newman, Ruskin, and Pater. 2 year cycle. 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. The course investigates the changes the idea of *Bildung* underwent at the hands of various authors in the 19th and early 20th 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 include Goethe's *Wilhelm Meister's Apprenticeship*, Bronte's *Jane Eyre*, Dickens' *David Copperfield*, and Joyce's *Portrait of the Artist as a Young Man*. 2 year cycle. Cr 3.

#### **ENG 379 Earlier Women Writers**

The aim of this course is twofold, to introduce students to the wealth of major works by women writers and to consider in detail the voices of women on women and society. Women novelists and poets have explored the entire range of human experience, of social, political, and philosophical issues as well as personal experience. This course will discuss the ways in which they have treated such issues as they relate to women's own lives. Although specific content may vary from semester to semester, readings are likely to emphasize nineteenth-century writers like Jane Austen, George Eliot, Charlotte Bronte, and Elizabeth Gaskell. 2 year cycle. Cr 3.

#### **ENG 380 The American Renaissance**

Major American writers of the mid-19th century. Includes critical study of major works by Emerson, Thoreau, Hawthorne, Melville, Whitman, and Dickinson with attention to the social and literary backgrounds. 2 year cycle. Cr 3.

#### **ENG 381 Colonial American Literature**

A study of early American writers of religious prose, fiction, and poetry. A course in early American history is recommended background. Cr 3.

### ENG 382 The Earlier American Novel

An historical survey of the American novel from Charles Brockton Brown to Henry James. 2 year cycle. Cr 3.

### ENG 384 Twain and James

A study of the major figures in the development of realism in American fiction after the Civil War. Selections will include *Adventures of Huckleberry Finn*, *Pudd'nhead Wilson*, *The Mysterious Stranger*, and *Old Times on the Mississippi*, as well as representative novels by James (e.g., *The Europeans*, *What Maisie Knew*, *The Spoils of Poynton*, and *The Ambassadors*). 2 year cycle. Cr 3.

### ENG 389 Writers of Maine

Historical and literary analysis of writers in and about Maine. The emphasis will be on the literary quality of the best-known men and women writers and the place in history both past and present of the lesser-known writers. Extra credit in the course will be given for a report about any off-campus project related to an author and a particular locality in Maine. English majors should have already taken a survey of American literature; prospective teachers will prepare an annotated bibliography of one author of their choice. Every year. Cr 3.

### ENG 475 Independent Study in the Victorian Period

By instructor's permission. See department for application form. Cr var.

### ENG 476 Seminar in Victorian Studies

An advanced course focusing on individual writers or particular literary themes or problems. Emphasis is on applying various critical and scholarly approaches to important, limited subjects. Cr 3.

### ENG 480 Independent Study in American Literature

By instructor's permission. See Department for application form. Cr var.

### ENG 481 Seminar in Earlier American Literature

An advanced course focusing on individual writers or particular literary themes or problems. Emphasis is on applying various critical and scholarly approaches to important, limited subjects. Typical subjects: backgrounds of American thought, Hawthorne and Melville, Twain and James, Thoreau. Cr 3.

### Modern Literature

### ENG 385 The Modern Age: British

The purpose of this course is to define and discuss the nature of Modernism as it developed in 20th-century Britain. Both technical change and innovation and changes in themes and attitudes will be considered. What kind of world, for example, does a poem like *The Waste Land* or a novella like *Heart of Darkness* portray? What assumptions underlie them? What changes in poetic narrative form do they demand? The class will emphasize early Modern (pre-World War II) but will attempt to discover, as

well, how contemporary British literature has developed since then. The course will include such writers as Joyce, Conrad, Yeats, MacDiarmid, Woolf, Lessing and Beckett. 2 year cycle. Cr 3.

### ENG 386 The Modern Age: American

The purpose of this course is to examine the nature of Modernism as it developed in 20th-century America. Early precursors such as Whitman, Dickinson, and Twain will be considered with a view to determining what special issues and techniques developed to express an American Experience. Emphasis, however, will be on major recent writers such as Faulkner, Hemingway, Fitzgerald, Pound, Williams, Katherine Anne Porter, Flannery O'Connor, Stevens, Moore, Hurston, and selected contemporary poets. 2 year cycle. Cr 3.

### ENG 387 Contemporary Women Writers

The focus of the course is on 20th-century novelists and/or poets. Specific readings and thematic approaches will vary depending on instructor. The course has been taught, for example, with an emphasis on the regional and ethnic cultures from which American women writers come, reading works by Kate Chopin, Willa Cather, Eudora Welty, Alice Walker, Toni Morrison, Maya Angelou, Leslie Silko, Maxine Kingston, Grace Paley, and Anne Sexton. 2 year cycle. Cr 3.

### ENG 388 Modern Christian Writers

Dostoevsky's novels mark a resurgent interest in Christian religious experience as a subject for major literature. This development in the 20th century includes such figures as Bloy, Eliot, Auden, Waugh, Greene, Undset, Claudel, Peguy, Mauriac, Bernanos, Silone, Lowell, Percy, and O'Connor. A representative selection, primarily fiction, will be examined. 2 year cycle. Cr 3.

### ENG 390 Modern British Poetry

Modern British poetry has taken diverse forms and concerned itself with a wide range of themes. This course, however, will focus on two or three selected major figures such as Hardy, Yeats, Eliot, MacDiarmid, Auden, and Thomas with the aim of placing them in the larger context. The class will examine and discuss early changes in poetic forms, the impact of World War I poets and the Georgians, the developments in contemporary Britain. The primary focus will then be to consider in depth the two or three major figures, defining what determines their particular voice and vision of reality. The selected poets will vary with the semester. 2 year cycle. Cr 3.

### ENG 391 Modern American Poetry

This course will focus on two or three major poets such as Stevens, Frost, Marianne Moore, Pound, Williams, Plath, and H. D. The course will also, however, seek to place them in a historical perspective, both in technical development and specifically American themes and conceptions of reality. There will be some examination of poets like Whitman and Dickinson, who stand at the beginning of modern American poetry, as well as contemporary poets like Levertov, Rich, Gwendolyn Brooks, Kinnell, and Bly.

The primary focus will then be to examine the selected figures against the broader context, with the purpose of defining their unique voices and forms. The selected poets will vary with the semester. 2 year cycle. Cr 3.

### **ENG 392 Twentieth-Century British Novels**

Selected novels from the late 19th century to the present. 2 year cycle. Cr 3.

### **ENG 393 Twentieth-Century American Novels**

An historical survey of American novels beginning around 1900. 2 year cycle. Cr 3.

### **ENG 394 Modern Poetry**

This course explores the tradition of experimentation in Dickinson, Frost, and Stevens. It draws from a range of figures in an effort to bring into focus the achievement of such English and American figures as Dorn, Berryman, Amy Clampitt and Norman Dubie. Course content varies. Cr 3.

### **ENG 395 Anglo-Irish Literature**

A study of the major Irish writers from 1880 to the present. Topics may vary, but they will typically include some of the foremost Irish writers of the past century, such as Yeats, Lady Gregory, Wilde, Shaw, Synge, Joyce, O'Casey, Behan, Beckett, O'Connor, Bowen, Lavin, Heaney, and Friel. 2 year cycle. Cr 3.

### **ENG 396 Southern Women Writers**

Novels and collections of stories by Ellen Glasgow, Elizabeth Madox Roberts, Katherine Anne Porter, Eudora Welty, Carson McCullers, Flannery O'Connor, Elizabeth Spencer, Ann Tyler, Alice Walker, and others will be examined individually and as expressions of female experience in a male-dominated traditional culture. 2 year cycle. Cr 3.

### **ENG 397 American Drama**

A study of the drama in the United States. A brief history of early American playwrights followed by a close study of major figures, with O'Neill as the center. Others: Maxwell Anderson, Robert Sherwood, Tennessee Williams, Arthur Miller, and

Edward Albee. (This course is also listed as THE 460). Cr 3.

### **ENG 398 The Southern Renaissance**

The post-World War I flowering in Southern letters, with emphasis on the fiction of Wolfe, Faulkner, Elizabeth Madox Roberts, Tate, Gordon, Porter, Warren, Welty, Peter Taylor, Flannery O'Connor, and Walker Percy. 2 year cycle. Cr 3.

### **ENG 490 Independent Study in Modern Literature**

By instructor's permission. See department for application form. Cr var.

### **ENG 491 Seminar in Modern British Literature**

An advanced course focusing on individual writers or particular literary themes or problems. Emphasis is on applying various critical and scholarly approaches to important, limited subjects. Typical subjects: Joyce's *Ulysses*, modern Scottish literature. Cr 3.

### **ENG 492 Seminar in Modern American Literature**

An advanced course focusing on individual writers or particular literary movements. Emphasis is on applying various critical and scholarly approaches to important, limited subjects. Typical subjects might be the image of blacks in American literature; the fugitive poets; Fitzgerald, Faulkner, and Hemingway; and the feminization of American culture. Cr 3.

### *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.

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## Foreign Languages and Classics

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*Chair of the Department:* Lucia A. diBenedetto, 55 Exeter Street, Portland

*Professor:* Crochet; *Associate Professors:* diBenedetto, Hinckley, Kinsella, Lepelley, Suscavage, Ubans; *Assistant Professors:* Rosenthal; *Professor Emerita:* Duclos

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 composition 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, travel, social services, the arts, and teaching.

## ***Programs and Requirements***

The Department offers a major in French and broader, interdepartmental majors in foreign languages, classical studies, 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. Courses in Italian are offered on a regular basis.

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 and civilization. These courses are numbered 281-299. Literature courses in this category may be credited towards 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.

### ***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 backgrounds, 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.

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.

### ***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. For Russian, there are two exchange programs with the Commonwealth of Independent States, one in Archangel and one in Kharkov. For Spanish, there are a number of options available in South America and in Spain. Students interested in study abroad should consult with the chair of the Department or with the Office of International Programs.

### ***Language Laboratory***

The language laboratory is located on the Portland campus in Payson Smith Hall, Room 203, and is open every weekday. Students enrolled in beginner's courses are required to work with audio-visual materials as an integral part of their 4-credit course. Students enrolled in intermediate courses may register for supervised language practice amounting to a minimum of one hour a week in the laboratory; they will receive one extra credit (on a pass/fail basis) for regular and active attendance. Since the work done in the language lab is coordinated with classroom work, only the students enrolled in a language course can take the corresponding lab section for credit. Credit for the lab is granted only if the student passes the course. Any exception to this has to be approved by the chair of the Department. All students are welcome to use the language lab facilities for their own purposes, without credit.

Students are also urged to get extra practice in French, German, Italian, Russian, Spanish, and Portuguese 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 secretary.

All major programs in the Department of Foreign Languages and Classics require that the student fulfill the requirements of the Core curriculum.

### ***Bachelor of Arts in French***

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 36.

One Language Theory course or two semesters of Latin (please consult Department)

#### **Language**

FRE	321	French Composition/Workshop in Writing French
FRE	323	French Conversation/Workshop in Speaking French
FRE	305	Phonetics

#### **Civilization**

FRE	29II	Civilization, historical approach
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**OR**

FRE	292I	Contemporary France
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Literature (any two)		
FRE	361	The Novel
FRE	362H	Poetry
FRE	363H	Theatre
Any two		
FRE	460	Quebecer Literature
FRE	461	17th-Century Literature
FRE	462	18th-Century Literature
FRE	463	19th-Century Literature
FRE	464	20th-Century Literature
PLUS		
FRE	465	Survey of French Literature
Electives (or any two of the above courses)		
FRE	221	Practice in Writing
FRE	223	Practice in Conversation

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:

Foreign Languages	German Studies
Classical Studies (concentration in either Greek or Latin)	Hispanic Studies
French Studies	Russian Studies

Please refer to the section on interdepartmental majors of this catalog or contact the chair of the Department of Foreign Languages and Classics for additional information.

### *Minors*

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 9.

Since the knowledge of a foreign language, or languages, is valuable to all majors in other CAS disciplines, the Department offers minor programs in Classics (Latin or Greek), French, German, and Spanish. A given program consists of nine credits selected from the following courses:

Classics Minor (Greek)
GRE 251, 252; 310; CLA 29II
Classics Minor (Latin)
LAT 251, 252; 310; CLA 292I
French Minor
FRE 321; 323; 305; 361, 362 or 363
German Minor
GER 321, 322; 351, 352; 281
Russian Minor
RUS 291; 301, 302; 470
Spanish Minor
SPA *331, *332, 351H or 352H
(*SPA 301, 302 are prerequisites)

### *Literature and Civilization in English Translation*

#### **CLA 171 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 improve-

ment of English vocabulary. No prior knowledge of Latin or Greek is necessary, nor are there any other prerequisites. Cr 3.

**CLA 283H The Epic Hero in Ancient Literature**  
Intensive readings in English translations of *Gilgamesh*, *Iliad*, *Odyssey*, *Argonautica*, *Aeneid*; dis-

cussion, papers. Prerequisite: sophomore standing. Cr 3.

**CLA 284H The Tragic Hero in Ancient Literature**  
Intensive reading of selected plays in English translation by Aeschylus, Sophocles, Euripides, Seneca; discussion, papers. Prerequisite: sophomore standing. Cr 3.

**CLA 285I Classical Mythology**  
Examination of the myths of Greece and Rome from a variety of perspectives: anthropological, etiological, historical, psychoanalytical, structural. Prerequisite: sophomore standing. Cr 3.

**CLA 29II 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, museum trip. Prerequisite: sophomore standing. 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, museum trip. Prerequisite: sophomore standing. Cr 3.

**FRE 281H Masterpieces of French Literature I**  
Novels and plays representative of French literature from the beginning of the 19th century to the present. No knowledge of French is necessary. Cr 3.

**FRE 282 Masterpieces of French Literature II**  
Novels and plays representative of French literature from the Middle Ages to the end of the 18th century. No knowledge of French is necessary. Cr 3.

**FRE 283H Contemporary French Thinkers**  
Readings and discussion of recent works of French literature selected for their philosophical and ethical importance: Saint-Exupéry, 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 French Civilization: Contemporary France**  
Institutions, education, society, economy, politics of France. No French is spoken in the classroom. 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 nineteenth 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 281H 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.

## **SPA 270 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. 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. 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.

### **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**

*French*

**FRE 101 Beginning French I**  
A beginning course in French. In the four skills of language learning: listening comprehension, speaking, reading, and writing. The class meets three times a week. In addition, audio-visual work is required. Cr 3.

**FRE 102I Beginning French II**  
Prerequisite: FRE 101 or equivalent. Cr 3.

**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 language learning: speaking, understanding, reading and writing along with an introduction to contemporary culture and civilization. Daily practice in the language laboratory is required (for two additional credits). Offered during the summer only. Cr 6. (With lab, Cr 8.)

**FRE 201I Intermediate French I**  
Review of grammatical structures. Further development of listening comprehension, speaking, reading and writing skills. Emphasis on understanding cultures and contemporary life of French-speaking countries through reading and discussion. Students are encouraged to also register for laboratory practice (one more credit). Prerequisites: FRE 102, FRE 103, two years of high school French or the equivalent. Cr 3. (With lab, Cr 4.)

**FRE 202I Intermediate French II**  
Continuation of FRE 201I. Prerequisite: FRE 201I or the equivalent. Cr 3. (With lab, 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, 102, 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 skills. Daily lab work is mandatory. Cr 6. (With Lab, Cr 8.)

**FRE 221 Practice in Writing**  
Advanced study of the French language. Proficiency in writing, vocabulary development and idiomatic expression are the objectives of the course. Prerequisite: FRE 202I or equivalent. Cr 3.

**FRE 223 Practice in Conversation**  
Intensive oral practice, expository reports, debates, class discussions. Prerequisite: FRE 202I or equivalent. Cr 3.

**FRE 251H Readings in French Literature**  
Reading and discussion of representative literary works in the major genres (fiction, drama, poetry). Designed to give a general background for the major as well as to provide a representative sampling for the non-major. Prerequisite: FRE 201I or equivalent. 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 321 Workshop in Writing French**  
Practice of free composition and translation. Prerequisite: FRE 221 or equivalent. Cr 3.

**FRE 323 Workshop in Speaking French**  
Practice of French conversation for advanced students. Prerequisite: FRE 223 or equivalent. Cr 3.

**FRE 361 The French Novel**  
A study of novels and short stories, especially of the 19th and 20th centuries, and of the various critical approaches to fiction. Prerequisite: FRE 251H or equivalent. Cr 3.

**FRE 362H French Poetry**  
A study of works by famous French poets and of the critical approaches to French poetry. Prerequisite: FRE 251H or equivalent. Cr 3.

**FRE 363H The French Theatre**  
A study of representative works by the major playwrights of France in the classical, romantic, and modern periods and of critical approaches to drama. Prerequisite: FRE 251H or equivalent. Cr 3.

**FRE 460 Quebecer Literature**  
Reading and discussion of prose fiction, poems, and plays by contemporary French Canadian writers such as Gabrielle Roy, Gérard Bessette, Anne Hébert, Marie-Claire Blais, Gaston Miron, and Marie Laberge. Prerequisites: FRE 361, 362H or 363H. Cr 3.

**FRE 461 17th-Century Literature**

A seminar in 17th-century French literature based on selected topics which may vary each time the seminar is offered. The theme will be announced the year that the course is given. Prerequisites: FRE 361, 362H or 363H. Cr 3.

**FRE 462 18th-Century Literature**

A study of the critical and revolutionary thought of the major 18th-century French thinkers (Montesquieu, Voltaire, Rousseau, Diderot) in an attempt both to define the role of the Enlightenment in the downfall of the *Ancien Régime* and to determine its place in the history of ideas. Prerequisites: FRE 361, 362H or 363H. Cr 3.

**FRE 463 19th-Century Literature**

A seminar in 19th-century French literature based on selected topics which may vary each time the seminar is offered. The theme will be announced the year that the course is given. Prerequisites: FRE 361, 362H or 363H. Cr 3.

**FRE 464 20th-Century Literature**

A seminar in 20th-century French literature based on selected themes which will vary each time the seminar is offered. The theme will be announced the year that the course is given. Prerequisites: FRE 361, 362H or 363H. Cr 3.

**FRE 465 Survey of Literature**

An opportunity for senior students to review and complete their previous studies of French literature by surveying its development and styles through the centuries. Prerequisites: FRE 361 and/or 362H and/or 363H. Cr 3.

**FRE 470 Independent Study***German***GER 101 Beginning German I**

Beginner's course in German. Initiation in the four skills of language learning: listening comprehension, speaking, reading, and writing. This course meets four times a week; in addition, a weekly half hour of work with coordinated language tapes is required. Cr 5.

**GER 102I Beginning German II**

Prerequisite: GER 101 or equivalent. Cr 5.

**GER 105 Reading German I**

Elementary course in German aiming exclusively at a reading knowledge of the language. No German spoken. Offered every other year. Cr 3.

**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 3. (With lab, Cr 4.)

**GER 202I Intermediate German II**

Continuation of GER 201I. Prerequisite: GER 201I or the equivalent. Cr 3. (With lab, Cr 4.)

**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, 102I or instructor's permission. Offered every other 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***Italian***ITA 101 Beginning Italian I**

Beginner's course in Italian. Initiation in the four skills of language learning: listening comprehension, speaking, reading, and writing. The class meets three times a week. In addition, one hour of language lab work is required. Cr 4.



**ITA 102 Beginning Italian II**

Prerequisite: ITA 101 or equivalent. Cr 4.

**ITA 201I Intermediate Italian I**

Reading of short stories and essays reflecting the wealth and variety of Italian culture. Classroom practice of conversation. Prerequisite: ITA 102, two years of high school Italian or the equivalent. Cr 3.

**ITA 202I Intermediate Italian II**

Continuation of ITA 201I. Prerequisite: ITA 201 or the equivalent. Cr 3.

**ITA 251 Readings in Modern Italian Novels I**

Students will read novels written in Italy during the past seventy years (Silone, Moravia, Vittorini, Calvino, Sciascia and others) and will discuss them in class. Prerequisite: ITA 202I or equivalent. Cr 3.

**ITA 252 Readings in Modern Italian Novels II**

Continuation of ITA 251. Prerequisite: ITA 251 or equivalent. Cr 3.

*Portuguese***POR 101 Beginning Portuguese I**

Beginner's course in Portuguese. Initiation in the four skills of language learning: listening comprehension, speaking, reading, and writing. The class meets three times a week. In addition, one hour of language lab work is required. Cr 4.

**POR 102 Beginning Portuguese II**

Prerequisite: POR 101 or equivalent. Cr 4.

**POR 201 Intermediate Portuguese I**

Review of grammatical structures. Further development of listening comprehension, speaking, reading, and writing skills. Continued emphasis on understanding of Portuguese culture and civilization through reading and discussion of literary and historical texts as well as frequent reference to contemporary customs and events. Cr 3.

**POR 202 Intermediate Portuguese II**

Continuation of POR 201. Prerequisite: Portuguese 201 or the equivalent. Cr 3.

*Russian***RUS 101 Beginning Russian I**

Beginner's course in Russian. Initiation into the five skills of language learning: oral comprehension, reading, speaking, writing, and cultural knowledge. This course meets five hours a week; in addition, work with coordinated language tapes is required. Cr 5.

**RUS 102 Beginning Russian II**

Prerequisite: RUS 101 or equivalent. Cr 5.

**RUS 107 Intensive Beginning Russian**

An intensive course to prepare the beginning student for the intermediate level of college Russian. Emphasis is placed upon the four skills of language learning: speaking, oral comprehension, reading, and writing, along with an introduction to contemporary

culture and civilization. Daily practice with tapes is required (for two additional credits). Offered during the summer only. Cr 6. (With tape work, Cr 8.)

**RUS 201I Intermediate Russian I**

Review of grammatical structures. Further development of listening comprehension, speaking, reading and writing skills. Emphasis on understanding Russian culture and contemporary life through reading and discussion. Students are encouraged to also register for laboratory practice (one more credit). Prerequisite: RUS 102, two years of high school Russian or equivalent. Cr 3. (With lab, Cr 4.)

**RUS 202I Intermediate Russian II**

Continuation of RUS 201. Prerequisite: RUS 201 or the equivalent. Cr 3. (With lab, Cr 4.)

**RUS 301 Advanced Russian I**

Advanced work in the four skills of speaking, oral comprehension, reading, and writing. Emphasis on building the student's active and passive vocabulary and deepening the student's knowledge of Russian and Soviet culture. Classes conducted in Russian only. Prerequisite: RUS 202I or equivalent. Cr 3.

**RUS 302 Advanced Russian II**

Continuation of RUS 301. Cr 3.

**RUS 351 Seminar in Russian Literature**

The content of this course will vary. Topics for the seminar 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 351 will be in Russian. The emphasis is on problems of language and style. Offered in Russian with prerequisite of RUS 302. Cr 3.

**RUS 421 Reading and Translating Russian**

In this course students learn to read Russian language periodicals, encyclopedias, history books, general science and social science texts, and so on. Students will also learn to translate these texts into English, and make short summaries of their contents. They will learn to skim such texts to obtain specific information as well as read them through for a thorough understanding. Cr 3.

**RUS 470 Independent Study***Spanish***SPA 101 Beginning Spanish I**

A beginning course in Spanish in the four skills of language learning: listening comprehension, speaking, reading, and writing. The class meets three times a week. In addition, audio-visual work is required. Cr 3.

**SPA 102I Beginning Spanish II**

Prerequisite: SPA 101 or equivalent. Cr 3.

**SPA 107I Intensive Beginning Spanish and SPA 107 Lab**

An intensive course for the beginning student, cover-

ing a full year's work at the college level to prepare the student for the intermediate level of college Spanish. 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 4.)

### **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 (one more credit). Prerequisite: SPA 102, two years of high school Spanish or the equivalent. Cr 3. (With lab, Cr 4.)

### **SPA 202I Intermediate Spanish II**

Continuation of SPA 201I. Prerequisite: SPA 201I or the equivalent. Cr 3. (With lab, Cr 4.)

### **SPA 207I Intensive Intermediate Spanish**

SPA 207 is an intensive course for the beginning student, covering a full year's work at the college level to prepare the student for an advanced language level. Emphasis is placed upon the four skills of language learning: speaking, understanding, reading, and writing. Readings and discussions of contemporary Hispanic civilization and culture are included. Daily lab work is mandatory. Prerequisite: SPA 102I or equivalent. Offered during the summer only.

Cr 6. (With lab, Cr 8.)

### **SPA 301 Practice in Conversation**

The objective of the course is oral proficiency in advanced contexts. Situational activities include reports, debates, class discussions, and conversations. Prerequisite: SPA 202I or equivalent. Cr 3.

### **SPA 302 Practice in Writing**

The objective of the course is advanced proficiency in writing. Grammar review and study of advanced linguistic expressions through readings in the target language are included. Prerequisite: SPA 202I or equivalent. Cr 3.

### **SPA 331 Advanced Conversation**

SPA 331 is a group discussion course for advanced students. Collateral reading and study of vocabulary idioms and expressions are required. Prerequisite: SPA 301 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 302 or equivalent. Cr 3.

### **SPA 351H Introduction to Hispanic Literature I**

A survey of the important periods and trends in Spanish literature with reading of representative works. Prerequisite: SPA 202I. Cr 3.

### **SPA 352H Introduction to Hispanic Literature II**

Continuation of SPA 351H. Cr 3.

### **SPA 470 Independent Study**

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## **Geography-Anthropology**

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*Chair of the Department:* Diana C. Crader, 300D Bailey Hall, Gorham

*Professor:* Davis; *Associate Professors:* Crader, French, Hodges, Tizon; *Assistant Professors:* Bampton, Hamilton

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 a 43-44-hour 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 geography-anthropology; applied geography minor in planning; and a concentration in the social sciences area major of the College of Arts and Sciences.

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 proficiency 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: 43-44.

All students must take:

ANT	101J	Anthropology: The Cultural View
ANT	102K	Biological Anthropology
ANT	103	Introduction to Archaeology
GEO	101J	Principles of Geography
GEO	201I	Cultural Geography
GYA	350-351	Internship in Applied Geography-Anthropology (or a field experience)

Students electing to concentrate in anthropology must take:

ANT	310	History of Anthropological Thought		
GEO	104	Cartography I	or	GEO 303J Economic Geography
ANT	240	Primate Behavior	or	ANT 305 Models in Archaeology
ANT	301I	Victims of Progress	or	ANT 2301I Hunters and Gatherers
and				

12 ANT hours

This would result in a 43-hour major.

Students electing to concentrate in geography must take:

ANT	213	Strategies for Survival		
GEO	102K	Physical Geography		
GEO	104	Cartography I	or	GEO 205 Air Photo Interpretation
GEO	303J	Economic Geography	or	GEO 402 Urban Geography
and				

12 GEO hours

This would result in a 44-hour major.

Additionally, all geography-anthropology majors are required to take:

3 hours of research writing or demonstrate competence by successfully completing research papers in the major, as reviewed by the Department

3 hours of quantitative methods

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.

### *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 104

Choice of one from: GYA 350-351, GYA 400

Choice of one from: GEO 204, GEO 205

Choice of one from: GEO 209, GEO 210

Choice of one from: GEO 303J, GEO 402

### *Concentration in Geography-Anthropology for the Social Sciences area major in the College of Arts and Sciences:*

ANT	101J	Anthropology: The Cultural View
ANT	102K	Biological Anthropology
ANT	103	Introduction to Archaeology
GEO	101J	Principles of Geography
GEO	102K	Physical Geography
GEO	201I	Cultural Geography
and/either		
GEO	104	Cartography I
or		
GEO	205	Air Photo Interpretation
or		
ANT	306	Archaeological Lab Analysis

### *Archaeology Laboratory*

The Archaeology Laboratory located in 317 Bailey Hall provides facilities for research in archaeology and related areas. Current collections include human skeletons, fossil human skulls, a comparative faunal collection, and various research collections, primarily from Maine and Alaska. 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.

## ***Cartography Laboratory***

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. There is a map collection available including Maine maps, topographic maps, and various world regional maps. Student proctors are present at most hours of the day to offer assistance.

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## ***Geography-Anthropology***

### **GYA 100 Museum Aide**

Museum aides serve on volunteer projects relating to research classification, maintenance and display of artifactual materials. Since the museum solicits input from students, their contributions are expected to show originality and complement the goals of the Museum of Cultural Change. A minimum of thirty (30) hours of service each semester is required for credit. Cr 1-3.

### **GYA 106 The Local Environment**

This is a field-oriented course that deals with the application of fundamental geographic concepts in the interpretation of areal development. The local area serves as the "laboratory" and provides models of geographic interaction that have applications on a broader scale. Cr 3-6.

### **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. Cr 4-6.

### **GYA 350-351 Internship in Applied Geography-Anthropology**

Internships offer the student practical experience in working with public agencies, private firms, and municipalities engaged in applied geographical-anthropological 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. The paper will be presented by the student at the end of the semester to a departmental seminar on applied geography-anthropology. Prerequisite: junior or senior standing in geography-anthropology. 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 upper-level 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. This course is required for all geography-anthropology majors. 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**

Introduction to Archaeology 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 archaeological 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 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 rela-

tionship 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 Strategies for Survival**

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 102K. 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. No prerequisites. Cr 3.

### **ANT 222I Peoples of the North**

This course is designed as a comprehensive summary of the prehistory, traditional culture, and contemporary 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 the 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 hunter-gatherer societies including the !Kung San, 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 Gender**

Anthropologists have long considered a division of labor and status on the basis of sex a universal practice throughout most if not all of civilization's history. There has, however, been a great deal of controversy regarding the nature, origin, and future of sexual stratification. Is the superior status of men cross-culturally "only in the eye of the beholder"? If not, why does it exist? Are its roots biological or cultural; is it inevitable? This course examines these provocative questions by looking at the range of women's roles in a variety of cultures, through readings, films, and slides. No prerequisites. Cr 3.

### **ANT 240 Primate Behavior**

This is a general course in primatology. 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. Cr 3.

### **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 101J or permission of instructor. Cr 3.

### **ANT 303I Food and Nutrition: An Anthropological Perspective**

The purpose of this course is to examine the relationship between human populations and their subsistence base, as a part of the larger study of human ecology. Much attention will be given to examining dietary variation in modern human societies. To that end, biological and demographic as well as cultural

adaptations to different dietary regimes will be analyzed. Various human subsistence types will be examined (hunting and gathering, horticulture, pastoralism, etc.), and attention will be given to methods for reconstructing prehistoric diets. Although previous anthropological and/or biological background may be useful, neither are required for mastering the concepts developed in this course. Cr 3.

### **ANT 305 Models in Archaeology**

Using archaeological data, archaeological anthropology tests a wide range of hypotheses about human society. The introduction of the hypothesis testing approach into archaeology is the result of recent expansions in theory and methodology. The literature discussing those theoretical and methodological developments will be critically evaluated by the student. Special attention will be given to reconstruction of prehistoric subsistence and settlement, and application of theory to public (conservation) archaeology. Prerequisite: ANT 103. Cr 3.

### **ANT 306 Archaeological Laboratory Analysis**

Students will be introduced to the analysis of materials collected on an archaeological site. Their work will be centered on the results of previous summers' archaeological excavations. Research projects will be associated with the same materials. Lecture material will focus on environmental archaeology, with special attention given to topics such as faunal analysis. This course may be repeated up to twice with the permission of the instructor. Prerequisite: ANT 103. Cr 3.

### **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. Prerequisite: ANT 10J or permission. Cr 3.

### **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 analyses of prehistoric human populations. Prerequisite: ANT 102K or ANT 103 or permission of instructor. Cr 3.

### **ANT 450 Topics in Anthropology**

This course is designed to undertake detailed, in-depth 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.

### **ANT 455 New England Historic Archaeology**

A study of the theories and methods used by archaeologists with an emphasis on how archaeological data and artifacts help us understand the social, cultural, and material life of New England's past. Some attention will be paid to comparative regional archaeology. This is the same course as New England Studies (NES) 655. This course is open to geography-anthropology majors with at least one course in archaeology, or by permission of the instructor. Cr 3.

### *Geography*

### **GEO 101J Principles of Geography**

This course applies a problem-solving approach to the learning of basic geographic skills and concepts. Cultural factors are emphasized in presenting human/environment relationships as seen from the geographer's point of view. The course is prerequisite for most upper-level geography courses and required for all majors in geography-anthropology. It also provides models and concepts useful in many other disciplines. 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. 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 104 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. This course is required for all majors concentrating in geography. A \$5.00 fee is assessed for this course. 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. No prerequisite. Cr 3.

### **GEO 201I Cultural Geography**

This course revolves around such components of culture as religion, art, music, settlement, economy type and their relation to one another. Concepts include spread, integration, and landscapes of culture. A problem oriented discussion format is used to relate the ideas of other cultures to our own. Prerequisite: GEO 101J. This course is required for all majors concentrating in geography. Cr 3.

### **GEO 204 Advanced Cartography (Cartography II)**

This course is intended to build upon the basic cartographic skills introduced in GEO 104 and to develop new, more advanced skills in cartographic design and communication. The course will be tailored around individual student's needs and interests, and will include fundamental aspects and use of major types of map projections, statistical mapping, land-form representation, and mapping point, volume and linear data. Prerequisite: GEO 104 or permission of instructor. A \$5.00 fee is assessed for this course.

Cr 3.

### **GEO 205 Air Photo Interpretation**

This course deals with the earth as perceived from the air and space. Hands-on analysis of various types of imagery includes basic photogrammetry plus air photo and satellite remote sensing interpretation. Applications to land use planning, archaeology, geology, and military science are among the topics covered. Recommended as a companion course to Cartography 204.

Cr 3.

### **GEO 206 Field Camp in Geography (also Farmington GEO 206)**

This system-wide offering brings students and teachers of several campuses together to participate in a geographic field experience of regional focus. A University of Maine system host campus is selected on a rotating basis and an appropriate theme developed to integrate the field studies in time and space. Various methods of geographic field analysis, mapping, and site interpretation are employed. Recommended for all majors concentrating in geography. No prerequisite.

Cr 3.

### **GEO 207 Map Appreciation**

This course is intended to provide a basic understanding of ways maps can serve the individual and the role maps can play in geography, science, business, the media, and historical studies. Various techniques that show linkage, flow, pattern, and comparison will be explored. Contemporary maps from various fields, as well as notable examples from the past, will be analyzed. Special themes will include mental maps, municipal maps, imagery from space, and the use of maps as propaganda. Non-majors are welcomed and encouraged to pursue projects in their chosen fields. Prerequisite: GEO 101J or 104 or permission of instructor.

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. No prerequisite.

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 301 Political Geography**

Political Geography examines geo-political theories and ideas, analyzes current and long-lasting political problem areas, and deals with some of the locational results of political decisions. Prerequisite: Introductory course in geography-anthropology or POS 104.

Cr 3.

### **GEO 303J Economic Geography**

Economic Geography presents an examination of classes of economic activities and explains the reasons for their location. There are two major objectives: to make available to the student the skills which allow him or her to interpret and understand the present economic landscapes and to evaluate the factors and trends that anticipate the future. Prerequisite: GEO 101J or ANT 101J or permission of instructor.

Cr 3.

### **GEO 402 Urban Geography**

This course deals with the American city as a type. Urban centers are dealt with at two levels—as whole entities in which location, characteristics, growth, and relations with the countryside are explored, and as complex nodal regions in which the internal variations of the city are examined. Prerequisite: GEO 101J or permission of instructor.

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.

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# Geosciences

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*Chair of the Department:* Irwin Novak, 211A Bailey Hall, Gorham

*Associate Professors:* Ayers, Novak, Pendleton, Pollock, Swanson; *Assistant Professor:* Fitts; *Laboratory*

*Associate:* Vose

## **Programs and Requirements**

Courses offered by the Department of Geosciences are grouped under the following headings: Oceanography and Geology.

A bachelor of arts degree program in geology is offered in the College of Arts and Sciences. A student majoring in geology must achieve a 2.0 grade point average and have no D grades in geology courses.

### **Geology**

The geology major is available for those students interested in environmentally related employment, or for those who plan to pursue a professional career in geology. Geology majors intending to pursue graduate work are urged to determine graduate school foreign language requirements. Students are also encouraged to consider concentrations in allied areas such as biology, chemistry, physics, computer science, economics, geography, and statistics.

### **Bachelor of Arts in Geology**

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 71.

#### **Chemistry and Physics**

CHY	113, 114	Principles of Chemistry I
	<b>and</b>	
CHY	115, 116	Principles of Chemistry II
PHY	121K, 122K	General Physics I
	<b>and</b>	
PHY	123, 124	General Physics II
	<b>or</b>	
PHY	111K	Elements of Physics I
	<b>and</b>	
PHY	112	Elements of Physics II

#### **Mathematics**

MAT	120D	Introduction to Statistics
MAT	152D	Calculus A

It is recommended that freshmen in the geology major who lack at least two years of high school algebra and a semester each of geometry and trigonometry take MAT 140D Precalculus Mathematics.

#### **Geology**

GEY	111K, 112K	Physical Geology
GEY	113, 114	Historical Geology
GEY	202	Geomorphology
GEY	203	Mineralogy
GEY	204	Optical Mineralogy
GEY	206	Paleontology
GEY	301	Structural Geology
GEY	302	Sedimentology
GEY	303	Igneous and Metamorphic Petrology
GEY	327	Applied Hydrogeology
GEY	491, 492	Senior Thesis in Geology
	<b>OR</b>	
GEY	498	Independent Study in Geology
GEY	495	Geology Seminar
GEY	496	Special Topics in Geology

**Elective Courses:** In addition to those courses listed above students are required to take six credit hours from the remaining electives.

GEY	205	Geological Oceanography (also OCN 205)
GEY	250	Library Research in the Earth Sciences
GEY	304	Sedimentary Rocks
GEY	310	Glacial and Pleistocene Geology



GEY	350	Geological Field Methods
GEY	405	Tectonics
GEY	427	Introduction to Groundwater Modeling
EAS	300-301, 400-401	Cooperative Education in Earth Science

Students planning to attend graduate school are strongly recommended to include a course(s) in computer science, languages, and additional courses in mathematics and chemistry.

To be retained in the geology major program, students are required to maintain a minimum grade point average (GPA) of 2.0 in geology courses.

### *Minor in Geology*

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 20.

Required courses: GEY 111K/112K; GEY 113/114; GEY 203; GEY 301; GEY 202 or GEY 302.

### *Oceanography*

#### **OCE 100K Introduction to Oceanography**

Origin and extent of the oceans; nature of the sea bottom; causes and effects of currents and tides; chemical and physical properties of sea water; animal and plant life in the sea. Three hours lecture.

Cr 3.

#### **OCE 101K Oceanographic Laboratory**

A laboratory course in which the student is introduced to some of the techniques and technical processes involved in oceanic measurements and data reduction. Prerequisite: OCE 100K which may be taken concurrently. One two-hour laboratory session each week. A laboratory fee is assessed for this course.

Cr 1.

### *Geology*

#### **GEY 111K Physical Geology**

A study of the ever-changing earth by wind, water, volcanism, plate tectonics, and glaciation. Three hours of lecture. GEY 111K may be taken without GEY 112K.

Cr 3.

#### **GEY 112K Physical Geology Lab**

Identification of common rocks and minerals, introduction to topographic maps, and development of the processes covered in lecture; field trips when weather permits. To be taken concurrently with GEY 111K. Lab two hours. A laboratory fee is assessed for this course.

Cr 1.

#### **GEY 113 Historical Geology**

Study of the earth's history in terms of physical, chemical and biological change from its origin to the present time, stressing the methods of determining chronology and conditions through fossils and structural characteristics. Prerequisites: GEY 111K, 112K. Two hours of lecture. To be taken concurrently with GEY 114.

Cr 4.

#### **GEY 114 Historical Geology Lab**

A study of rocks, minerals, and fossils to determine the geological conditions at some ancient time. Introduction to paleogeographic and geologic maps. Field trips. To be taken concurrently with GEY 113. Three hours.

Cr 0.

#### **GEY 202 Geomorphology**

Description and interpretation of landform development in terms of geologic structure, process, and stage. One, possibly two, weekend field trips. Prerequisites: GEY 113, 114. Two hours lecture. Two hours lab.

Cr 4.

#### **GEY 203 Mineralogy**

An introduction to crystallography and a study of the physical properties and chemical structures of common rock-forming minerals. Laboratory analysis is an important part of the course. Three hours lecture. Three hours lab. Prerequisites: GEY 111K, 112K. CHY 113, 114 (may be taken concurrently).

Cr 4.

#### **GEY 204 Optical Mineralogy**

The principles of crystallography and crystal optics are presented as the basis of a practical approach to the identification of minerals with a petrographic microscope. The laboratory is an important part of the course, providing practical applications of the theory and methods covered in the lecture. Prerequisite: GEY 203. Lecture three hours. Lab four hours.

Cr 4.

#### **GEY 205 Geological Oceanography**

The origin and structure of the continental shelves and ocean basins. Coastal and oceanic processes; geomorphic development of the marine environment. Prerequisites: GEY 111K, 112K or OCE 100K or permission of the instructor. Three hours lecture.

Cr 3.

#### **GEY 206 Paleontology**

A description and classification of the important phyla of the fossil invertebrates and a survey of their use in biostratigraphic, evolutionary, and paleoecologic studies. One weekend field trip. Prerequisites: GEY 113, 114. Two one-hour lectures and one two-hour lab per week.

Cr 3.

#### **GEY 210 Field Trips in the Geology of Coastal Maine**

This course offers the opportunity to examine firsthand the exquisite and complex bedrock geology of southern coastal Maine through a series of summer field trips to key localities. Preliminary lectures will outline the expected rock types, structures and geologic history for each field trip.

Cr 3.

### **GEY 250 Library Research in the Earth Sciences**

This course is specifically designed to help earth science students develop skills in recognizing research topics and then developing a strategy to find information pertaining to those topics. This course is applicable to all fields of study but the examples and references focus on the earth sciences. Prerequisite: sophomore standing. Cr 1.

### **GEY 301 Structural Geology**

An introduction to the mechanics of rock deformation, faulting, jointing, top-bottom criteria, and metamorphic foliations. The lab includes problems in descriptive geometry, stereonet, the Brunton compass, geologic maps and cross sections, and analysis of polyphase folding. Prerequisites: GEY 111K, 112K and GEY 113, 114. Field trips. Three hours lecture, two hours lab. Cr 4.

### **GEY 302 Sedimentology**

Principles of sedimentation, facies, nomenclature, and sedimentary processes and environments. Students will analyze common field problems associated with these areas. Prerequisite: GEY 203. GEY 202 recommended. Some weekend field trips. Two hours lecture, three hours lab. Cr 4.

### **GEY 303 Igneous and Metamorphic Petrology**

The study of the origin of igneous and metamorphic rocks. Topics include operational thermodynamics as applied to igneous and metamorphic rocks, crystallization of silicate systems, mineral equilibria and paragenesis. Laboratory studies include work with hand specimens and thin sections. One or more day or weekend field trips. Prerequisite: GEY 204. Three hours lecture, four hours laboratory. Cr 4.

### **GEY 304 Sedimentary Rocks**

A study of stratigraphic principles, facies, paleocurrents, and sedimentary basins. The petrology of the sedimentary rocks is considered from burial to the onset of very low grade metamorphism. Prerequisite: GEY 204. (May be taken concurrently.) Three hours lecture, two hours laboratory. Cr 4.

### **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. Two hours lecture, two hours lab. Cr 3.

### **GEY 327 Applied Hydrogeology**

This is an introductory course in the basic physical principles of groundwater flow. Topics include Darcy's Law, groundwater flow equations, well hydraulics, regional flow systems, and groundwater quality and management. Prerequisites: GEY 111K and junior standing or permission of instructor. Calculus is recommended. Three hours lecture, two hours laboratory/discussion. Cr 4.

### **GEY 350 Geological Field Methods**

A course in geological field methods intended to introduce to the student the tools and practical techniques used in collecting, compiling, and analyzing

geological data. Students will have assignments in the igneous/metamorphic and surficial terrain of southern coastal Maine and sedimentary and volcanic terrain in eastern coastal Maine. Summer. Five weeks. Prerequisites: GEY 111K, 112K and GEY 113, 114. GEY 203, GEY 301. Recommended: GEY 302, GEY 303, GEY 202. Cr 6.

### **GEY 405 Tectonics**

Major topics include the nature of the earth's crust and interior, continental drift, seafloor spreading, and plate tectonics. The evolution of mountain ranges, continents, and ocean basins will be studied on a global scale. Current articles in scientific journals will be discussed. Lab includes graphical, computer, and dynamic-clay modeling of plate tectonic processes. Prerequisite: GEY 301 or 303 or permission of instructor. Three hours lecture, two hours laboratory. Cr 4.

### **GEY 427 Introduction to Groundwater Modeling**

This course examines the basic concepts, data requirements, limitations, and types of groundwater models. Microcomputers are used for simulating steady state and transient groundwater flow with external stresses, as well as for simulating solute transport in groundwater flow. Prerequisite: GEY 327 or permission of instructor. Three hours lecture, two hours lab. Cr 4.

### **GEY 490/491 Senior Thesis**

The Senior Thesis is designed for the senior level student to pursue independent research in geology. The thesis is designed to be a scholarly effort in culmination of the student's baccalaureate program. Cr 3.

### **GEY 495 Geology Seminar**

The seminar is meant to provide the geology major with an overall view of the discipline as well as the opportunity to discuss, read, and report about specific topics in the field. Current problems, research, and philosophy of geology will be included. Prerequisite: senior standing. Cr 1.

### **GEY 496 Special Topics in Geology**

A critical and in-depth investigation of one of various topics and issues in different areas of geology (e.g. petrology, paleontology, tectonics, geomorphology). Prerequisite: senior standing. Cr 1.

### **GEY 498 Independent Study in Geology**

To provide junior and senior majors who have demonstrated critical and analytical capability an opportunity to pursue a library, laboratory, and/or field project independently. Topic selection to be arranged mutually between student and faculty in the semester preceding planned registration. Prerequisite: junior or senior standing. On demand. Cr 1-3.

## ***Physical Science/Earth Sciences***

### **PSC 498 Independent Study in the Physical Sciences**

To provide juniors and seniors who have demonstrated critical and analytical capability an opportunity to pursue a project independently, selecting a problem

and exploring an area of interest in the physical sciences, bringing to it previous experiences and emerging with an intellectually sound, coherent synthesis or technical creation reflecting a high caliber of performance.

Cr 1-3.

**EAS 300-301, 400-401 Cooperative Education in Earth Sciences**

The student has the opportunity to relate academic knowledge to practical experience in a job situation. The University makes arrangements with certain institutions, businesses, and industries to employ quali-

fied students for specific jobs for a set time period. The student's work is ordinarily in a related field and the work experiences increase in difficulty and responsibility as the student progresses through the sequence of courses. The experiences are approved on a case-by-case basis by the department. Evaluation is done through a written report done by the student together with the employer and a faculty supervisor. Prerequisites: junior class standing and a major in earth science. Each semester students may take each course only once.

Cr 1-5.

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# History

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*Chair of the Department:* Alfred Padula, 520 Luther Bonney Hall, Portland  
*Professors:* Bibber, Cole, Dietrich, Eastman, Hunt, Long, Schleh; *Associate Professors:* Albee, Holden, Padula, Ventresco, Whitmore; *Assistant Professors:* Eagan, Johnson

History remains a venerable and enduring academic discipline because of the nature of time and the human need to gain perspective and direction by recovering a sense of the past. To do this requires the techniques of collecting, evaluating, organizing, and interpreting historical evidence. The history curriculum offers students the opportunity to learn the historian's craft through lectures, discussions, research, and writing.

History is one of the classic liberal arts disciplines that prepares students for a full and satisfying life as well as for careers in business, government, and nonprofit organizations. More particularly, history is widely recommended as preparation for graduate studies in business, law, and library science. Besides teaching, specific careers include service with federal, state, and local governments; archival and library work; social science research; editing of documents; publishing; writing and research for historical presentations on television and radio; and many others.

**Program and Requirements**

The Department of History offers a 41 credit-hour major which leads to a bachelor of arts in history and an 18-hour minor for students majoring in other disciplines. In addition, the Department offers an exchange program with King Alfred's College in Winchester, England, and an internship program in cooperation with area historical societies, museums, libraries, and other institutions. Departmental offices have information on all of these programs.

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. It is strongly recommended that majors, especially those expecting to undertake graduate study, acquire proficiency in a foreign language.

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. Unusually well-prepared entering students may, upon passing an examination, gain exemption from any of the required courses. College Level Equivalency Program (CLEP) examinations are available in Western Civilization and United States history, and a Department examination has been prepared for HTY 200 Reference, Research and Report Writing. Majors and minors are reminded that, in addition to Department requirements, they must also meet those of the University Core curriculum.

Other courses in the College of Arts and Sciences have historical interest. Although they do not count for history credit, a student majoring or minoring in history may wish to take some of these courses as supplementary electives.

**Bachelor of Arts in History**

To graduate with a bachelor of arts in history, a student must successfully complete a minimum of 41 credits in history courses as follows:

Field I		
HTY	10II	Western Civilization I
HTY	102I	Western Civilization II
HTY	13II	United States History to 1877
HTY	132I	United States History Since 1877

Field II (select two)

HTY	152I	The Islamic Near East
HTY	161I	African History to Partition
HTY	162I	African History Since Partition
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
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Research paper courses (taken concurrently with HTY 303 to HTY 399)

HTY	395	Research Paper (to be taken twice)
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Elective advanced history courses

Select five 303-399 level courses in consultation with your major advisor.

Senior seminar

HTY	400	Senior level seminar
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### *Minor in History*

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

Students majoring in CAS disciplines who desire a concentration in history may develop an 18 credit-hour minor. The program of study must focus upon a particular country, continent, era, or theme of their choosing. The program must be developed in cooperation with a member of the history faculty and include the two-semester survey sequence appropriate to the focus.

Requirements: appropriate two-semester survey sequence and four elective advanced history courses (approved by advisor and 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 131I United States History to 1877**

A basic survey and introduction to the field of American history, covering the political, social, and economic development of the United States through Reconstruction. Cr 3.

#### **HTY 132I United States History Since 1877**

The course is a continuation of HTY 131. A survey of American political, social, and economic development since about 1877. 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 non-Islamic people both within and without the region.

Cr 3.

#### **HTY 161I Introduction to African History to Partition**

A survey of African history from early migrations to the beginning of the Colonial era. The approach is both regional, stressing selected countries representative of their regions, and topical, cutting across political boundaries. Topics include the states of the Sudan, city states of East Africa, Islam, the slave trade, exploration, and partition. Cr 3.

#### **HTY 162I Introduction to African History Since Partition**

A survey of the Colonial era, the transformation of African societies, the rise of nationalist movements, wars of liberation, and early years of the new era of independence. 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 1811 Latin America I**

This survey outlines the nature of the pre-Columbian Indian civilizations, their conquest by the European powers and the creation of the Hispanic and Portuguese empires in America. Cr 3.

### **HTY 1821 Latin America II**

This survey begins with the shattering of Iberian colonialism, and moves rapidly into the 20th 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. 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-ca. 300 B.C. 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 8th century B.C. to the 5th century A.D. Emphasis is given to the period of the Roman Republic (509-31 B.C.) and to the rise of Christianity within the Roman Empire. Prerequisite: HTY 101I or equivalent. 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 in-depth 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 102I 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 mid-nineteenth 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 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 19th century; there is a strong emphasis on cultural aspects of Russian and Soviet developments. Prerequisite: HTY 102I or permission. Cr 3.

### **HTY 319 The Age of Revolutions and Romanticism (ca. 1815-1852)**

A study of Europe from the fall of Napoleon I to the middle of the 19th century. The course will focus on the impact of the French Revolution on European society and on the lingering revolutionary tradition. Specific revolutions and personalities will be examined within the framework of the Romantic Protest, especially in Germany, Italy, and France. Prerequisite: HTY 102I or permission of instructor. Cr 3.

### **HTY 320 Europe at the Turn of the Century (1871-1913)**

This course concentrates on the culture and politics of *fin de siècle* Europe. The pre-World War I society will be viewed from a variety of perspectives and will focus on various individuals who helped shape the times. Of particular interest will be the views and impact of Marx, Darwin, and Wagner within the framework of the Industrial Revolution and Imperialism. 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: HTY 102I or 132I or permission. Juniors and seniors only. Cr 3.

### **HTY 326 History of England**

A survey of England from Anglo-Saxon times to the beginning of the 20th 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 101I or permission. Cr 3.

### **HTY 327 Italy, Unification to World War I**

A political, intellectual, diplomatic, and social history of Italy from the *Risorgimento* to the eve of World War I. Considerable emphasis will be given to the role of the Papacy in Italian affairs. Major literary figures to be examined will include Foscolo, Leopardi, Manzoni, Verga, and Carducci. Prerequisites: HTY 101I and HTY 102I or permission. Cr 3.

### **HTY 328 Fascist Italy**

This course examines the development, practice and theory of Fascism. Considerable attention will be centered on Benito Mussolini and his relationship to the Fascist Party, the people, the Catholic Church, and foreign affairs. Italian culture in the fascist era will be explored through literature and the arts. Prerequisite: HTY 102I 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: HTY 102I or permission. Juniors and seniors only. 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 20th-century Europe or the United States is also recommended. Cr 3.

### **HTY 336 Leaders of the 20th Century: Churchill, Roosevelt, Hitler**

This course studies in-depth the lives of three major political leaders of the 20th century: Winston Churchill, Franklin Roosevelt, and Adolf Hitler. The approach is biographical, with considerable emphasis on the personality of each individual and his conduct in peace and war. An effort has been made to select contemporaries whose lives interrelate, thus providing a study of an era. Documentary film footage, slides, and readings will accompany lectures and discussions. Prerequisite: HTY 102I or 132I or permission. Cr 3.

### **HTY 339 European Women's History**

A survey of women's lives in historical context, from ancient times to the 20th 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 131I 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 131I 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 131I 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 131I 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 131I 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 132I or permission.

Cr 3.

**HTY 358 Early 20th-Century United States, 1898-1938**

The United States in the first four decades of the twentieth century with coverage of the Spanish-American War, the progressive movement, American entry into World War I, the Roaring Twenties, the Great Depression, and the domestic programs of the New Deal. Prerequisite: HTY 132I or permission.

Cr 3.

**HTY 359 America Since 1938**

The United States since the Great Depression with coverage of the foreign policy of the New Deal, the background to Pearl Harbor, World War II, the Fair Deal, the Cold War, the Eisenhower years, the New Frontier, and the Great Society. Prerequisite: HTY 132I 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.

Cr 3.

**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: HTY 131I and 132I or permission.

Cr 3.

**HTY 363 Sickness and Health in America: Historical Perspectives**

The growth of the U.S. health care system on the basis of European models and local needs. Infectious diseases from smallpox to AIDS. Social consequences and contexts for various Americans—native Americans, blacks, and women. Alternative views of health and disease.

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 365 History of Black Americans**

An examination of the interaction of black people with American social, political, cultural, and economic institutions. Major topics include the African heri-

tage, components of slavery, abolitionism, segregation, programs of race advancement, and the modern search for identity. Prerequisites: HTY 131I and 132I or permission.

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: HTY 131I and 132I or permission.

Cr 3.

**HTY 367 The American Home**

A survey of U.S. domestic architecture, considering the influence of changing tastes, as well as climate and technology, on the buildings in which Americans have lived. Attention will be given to the historical styles as illustrated in the homes of the well-to-do, but attempts also will be made to look carefully at where and how "the people" lived. The approach will include slide-illustrated lectures and on-the-spot observation. Prerequisite: six hours of U.S. history.

Cr 3.

**HTY 368 American Urban History**

A survey of the American city: social, political, intellectual, and cultural components; the changing nature of "community"; the course of urban development; and the emergence of urban life styles. Special attention is focused on the population movement to the city; the development of slums, ghettos, and suburbs; the growth of municipal institutions and services; the relationship of city dwellers and government; and the emergence of "Megalopolis." Prerequisite: HTY 131I or permission.

Cr 3.

**HTY 369 Viewpoints in American History**

A seminar involving discussions of selected topics in United States history, with emphasis on varying interpretations of trends and events. Students will read and analyze both traditional and more recent views, noting changes in frames of reference, methodology, and general approach. Prerequisite: 12 hours of U.S. history.

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 131I or permission.

Cr 3.

**HTY 373 American Social and Intellectual History II**

A continuation of HTY 372 from 1865 to the present. Prerequisite: HTY 132I or permission.

Cr 3.

**HTY 375 CIA: U.S. Foreign Intelligence since Pearl Harbor**

This course traces the rise of the U.S. intelligence empire with case studies of its information gather-

ing and covert action activities, as well as a consideration of the moral questions and political dilemmas, short and long term, posed by these operations. In effect, it is an examination of the underside of recent U.S. foreign relations. Prerequisite: six hours of history or social science 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 131I or permission. Cr 3.

### **HTY 379 Diplomatic History of the United States II**

The chief emphasis is placed on the causes and results of World Wars I and II, the nature of the Cold War, and the character of our present commitments. Prerequisite: HTY 132I or permission. 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 and folkloric religions will be considered. Cr 3.

### **HTY 384 Contemporary Africa**

An interdisciplinary seminar on contemporary Africa examining literature and the arts, social change, development and adaptation in African politics, economic development, race relations, and international politics. Cr 3.

### **HTY 385 Africa Through Its Literature**

An examination of how African history has been portrayed through novels. Both historical re-creation novels and books reflective of the societies which produced them are used, with particular emphasis on English-speaking Africa. Prerequisite: HTY 161I or HTY 162I recommended. Cr 3.

### **HTY 386 History of South Africa**

An in-depth examination of one of Africa's most controversial and important countries. Combines a

series of illustrated lectures on South Africa's historical background with discussions of contemporary political (domestic and international), social and economic issues. Cr 3.

### **HTY 388 History of Modern China**

After dealing with the nature of Chinese society and institutions as they existed around 1800, the course will take up problems of modernization, imperialism, revolution, warlordism, Japanese aggression, civil war, and the present communist regime. Prerequisite: HTY 172I recommended. Cr 3.

### **HTY 389 History of Modern Japan**

This course will explore what Japan was like when Perry "opened" it in 1854 and will deal with the rapid social changes which made Japan the outstanding example of modernization among non-Western nations. The problems which this development has created will also be considered. Prerequisite: HTY 172I recommended. Cr 3.

### **HTY 390 China and Cuba under Communism**

This is a course in comparative history, focusing on developments in China and Cuba since the assumption of power by Communist regimes in 1949 and 1959 respectively. The principal topics dealt with include political events, the organization of power, economic and social development, and relations with the outside world. Cr 3.

### **HTY 394 Selected Topics in History**

An analysis of a selected controversial historical problem. The topic to be studied and the method of approaching it will be chosen jointly by interested students and the staff. Prerequisite: permission of the instructor. (Offered occasionally.) Cr 3.

### **HTY 395 Research Project for History Majors**

The conceptualization, research, and writing of a term paper. Course must be taken concurrently with a course numbered between HTY 303 and HTY 394 and offered by the same instructor. Course limited to and required for history majors. Prerequisites: HTY 200 and permission of instructor. *Course must be taken at least once prior to the end of the junior year and no more than once with the same instructor.* Cr 1.

### **HTY 397 Independent Study Semester**

This is the course designator for students who participate in the History Department's semester abroad exchange program with King Alfred's College in England. Cr 3-15.

### **HTY 398 Independent Study in History**

To provide juniors and seniors who have demonstrated critical and analytical capability an opportunity to pursue a project independently, charting a course and exploring an area of interest within their major field, bearing upon it previous course experiences, and emerging with an intellectually sound, coherent synthesis reflecting a high caliber of performance. Prerequisite: permission of instructor. Cr 1-3.



## 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. Note: The requirement of this seminar for the history major does not apply to

students who entered the Department prior to fall 1988. Prerequisites: HTY 395 (at least once) and senior status. Preference to history majors. Cr 3.

Other courses in the College of Arts and Sciences have historical interest. Although they do not count for history credit, the major may wish to take some of them as supplementary electives.

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## Mathematics and Statistics

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*Chair of the Department:* Joel W. Irish, 115G Bailey, Gorham

*Professors:* Estes, Guay, Gupta, B., Kratzer, Mainville; *Associate Professors:* Chabot, Foster, Gupta, S., Irish, MacDonald; *Assistant Professors:* El-Taha, Flagg, Kenyon, Narang, Soychak, Uddin

The Department of Mathematics and Statistics offers a four-year program leading to a B.A. in mathematics. All students are reminded that, in addition to meeting Departmental requirements for a major, they must also meet the requirements of the school or college involved, and the University Core curriculum requirements.

### Programs and 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 44 (26 in foundations and 18 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)			(26 cr hrs)
MAT	152D	Calculus A	4 cr
MAT	153	Calculus B	4 cr
MAT	252	Calculus C	4 cr
MAT	290	Foundations of Mathematics	4 cr
MAT	381	Introduction to Probability and Statistics	4 cr
MAT	295	Linear Algebra	3 cr
COS	160	Structured Problem Solving: PASCAL	3 cr

##### B. Concentrations

Each mathematics major should choose one of the following concentrations. (18 cr hrs)

##### 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 I and II, 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 four of the courses listed below:

MAT	352	Real Analysis I
MAT	355	Complex Analysis
MAT	395	Abstract Algebra
MAT	490	Topology
MAT	370, 371, or 372	Non-Euclidean, College, or Projective Geometry

##### b. Successful completion of at least two additional mathematics courses with second digit 5 or greater.

##### 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 Introduction to Probability and Statistics, Statistical Inference, Numerical Analysis, and the appropriate courses in the School of Business, Economics and Management. Majors intending to pursue graduate work in applied mathematics are urged to take Real Analysis and Abstract Algebra.

a. Successful completion of four of the courses listed below:

MAT	350	Differential Equations
MAT	354	Topics in Advanced Calculus
MAT	364	Numerical Analysis
MAT	366	Deterministic Models in Operations Research
MAT	460	Mathematical Modeling
MAT	492	Graph Theory and Combinatorics
MAT	561	Stochastic Models in Operations Research

b. Successful completion of at least two additional mathematics courses with second digit 5 or greater.

### 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 MAT 382 and three of the courses listed below:

MAT	384	Non-Parametric Methods
MAT	386	Sampling Techniques
MAT	388	Statistical Quality Control
MAT	481	Stochastic Processes
MAT	582	Introduction to Time Series Analysis
MAT	584	Design and Analysis of Experiments

b. Successful completion of at least two additional mathematics courses with second digit 5 or greater.

## II. 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 380 or MAT 381 and

five of the following courses:

MAT	384	Non-Parametric Methods
MAT	386	Sampling
MAT	388	Statistical Quality Control
MAT	498	Topics
MAT	561	Stochastic Models in O.R.
MAT	582	Introduction to Time Series
MAT	584	Design and Analysis of Experiments

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.

## III. Minor in Mathematics

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

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; plus two additional MAT courses with second digit 5 or greater.

### Recommended Courses for Non-majors

Students who desire an introductory course to satisfy the Quantitative Decision Making portion of the Basic Competence requirement of the Core curriculum should consider MAT 105D. For students majoring in other disciplines, but wishing to develop competency in using mathematics, the following courses are recommended. Individual course descriptions should be consulted to determine prerequisites: MAT 109D; MAT 110D (or MAT 152D and MAT 153 for greater depth in calculus); or MAT 120D (or MAT 211 and MAT 212 for greater depth in probability and statistics).

It is expected that students will possess and be able to operate a basic scientific calculator if they enroll in mathematics courses.

### MAC 100 Computers and Society

A general course designed for students not majoring in mathematics or computer science. Topics will include: history of data processing technology; study

of the tools and methods; the application of computers and their economic and social implications; and an introduction to a programming language. Cr 3.

### MAC 234 Computer Programming for Elementary Teachers

This course introduces the elementary education major to programming techniques and applications

using the BASIC language. No programming skills will be presumed. Prerequisite: MAT 131D. Cr 3.

### **MAC 249 Computer Programming: LOGO**

An introduction to the LOGO language for microcomputers. Emphasis will be given to writing computer programs for use in elementary school classrooms beginning with turtle graphics. Cr 3.

### **MAT 010 Elementary Algebra**

The first course of a two-course sequence designed for students who are deficient in high school algebra. Topics covered include: basic operations with integers and rational numbers; equations with variables; algebra word problems; operations with polynomials and algebraic fractions (including factoring), and operations with exponential and radical expressions. Prerequisite: MAT 009 or its equivalent. Associate degree credit only. Cr 3.

### **MAT 011B Intermediate Algebra**

A continuation of MAT 010. Topics include: graphing linear equations in two variables; quadratic equations; graphs of functions and relations; conic sections; solutions to systems of equations; solutions for inequalities; and exponential and logarithmic functions. Prerequisite: one year of high school algebra or MAT 010. Associate degree credit only. Cr 3.

### **MAT 100D College Algebra**

The real number system, algebraic operations, sets, equations, inequalities and their graphs, functions and relations, quadratic functions, exponential and logarithmic functions, theory of equations, systems of equations, permutations, combinations, probability, sequences and series, matrices and determinants, and mathematical induction. Prerequisite: successful completion of the University's Mathematics Proficiency requirement. Cr 3.

### **MAT 105D Mathematics for Quantitative Decision Making**

This course is designed to give students not majoring in mathematics or related fields an understanding of some key ideas in quantitative decision making. The material is chosen to develop awareness of the utility of mathematics in life and to instill an appreciation of the scope and nature of its decision-making potential. The computer packaged programs may be used as tools to assist the students in performing calculations necessary for the decision-making process. Prerequisite: successful completion of the University's Mathematics Proficiency requirement. Cr 3.

### **MAT 109D Linear Systems**

An introduction to vectors, matrices, and linear systems of algebraic equations and linear programming. Prerequisite: successful completion of the University's Mathematics Proficiency requirement. Cr 3.

### **MAT 110D Business Calculus**

A unified treatment of the elementary functions of analysis; their analytical properties including derivatives, integrals, and series; introduction to multivariate calculus; applications. Prerequisites: successful completion of the University's Mathematics Proficiency

requirement and a passing grade on an algebra competency test which will be administered at the first class meeting. Cr 3.

### **MAT 120D Introduction to Statistics**

An introductory course including basic probability, random variables, and their distributions; estimation and hypothesis testing; regression and correlation. Prerequisite: successful completion of the University's Mathematics Proficiency requirement. Cr 3.

### **MAT 131D 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 Mathematics Proficiency requirement. 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 Mathematics Proficiency requirement and a passing grade on an algebra competency test which will be administered at the first class meeting. Cr 3.

### **MAT 152D Calculus A**

This is the first of a sequence of three basic calculus courses covering functions of one or more variables, graphs, limits, derivatives, integrals, optimization, infinite series, vectors, and various applications. Calculus A provides an introduction to the differential and integral calculus of functions of one variable. Prerequisite: two years of high school algebra plus geometry and trigonometry, or MAT 140D. Cr 4.

### **MAT 153 Calculus B**

A continuation of Calculus A. Calculus B will usually include infinite series and an introduction to vectors. Prerequisite: MAT 152D. Cr 4.

### **MAT 211 Probability**

Common probability laws and distributions of discrete and continuous random variables; business applications in probability. Prerequisite: MAT 110D or MAT 152D. Cr 3.

### **MAT 212 Statistics**

Sampling distributions; estimation; hypothesis testing; introduction to regression analysis and analysis of variance. Applications primarily in business and economics. Prerequisite: MAT 211. Cr 3.

### **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 3.

### **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 131D. 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 131D. Cr 3.

### **MAT 233 Probability for Elementary Teachers**

An introductory course in probability designed for the elementary and junior high teacher. The course content includes empirical probability through conditional probability, random variables and their distributions, including binomial and normal distributions. Prerequisite: MAT 131D. Cr 3.

### **MAT 235 History of Mathematics for Elementary Teachers**

A history of certain topics in number theory, geometry, and elementary algebra. Prerequisite: MAT 131D. Cr 3.

### **MAT 252 Calculus C**

Multivariate calculus and vector calculus. Prerequisite: MAT 153. Cr 4.

### **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. 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. Prerequisite: COS 280 or MAT 290. Cr 3.

### **MAT 350 Differential Equations**

A study of various methods for solving ordinary differential equations, including series methods and Laplace transforms. The course also introduces sys-

tems of linear differential equations, Fourier series, and boundary value problems. Prerequisite: MAT 252. Cr 4.

### **MAT 352 Real Analysis I**

Limits, continuity, differentiation and integration of functions of one or more real variables, infinite series, uniform convergence, and other selected topics. Prerequisites: MAT 252, and COS 280 or MAT 290. Cr 3.

### **MAT 353 Real Analysis II**

A continuation of Real Analysis I. Prerequisite: MAT 352. Cr 3.

### **MAT 354 Topics in Advanced Calculus**

Selected topics on multivariate functions, vectors transformations, line integrals, and surface integrals. 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, COS 160, and 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. Cr 3.

### **MAT 372 Projective Geometry**

Synthetic and analytic projective geometry, including finite projective planes. Prerequisite: COS 280 or MAT 290. Cr 3.

### **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 MAT 110D. Cr 3.

### **MAT 381 Introduction to Probability and Statistics**

Basic concepts of probability theory with an introduction to its statistical applications. Particular topics will include discrete and continuous distributions, moment generating functions, characteristic functions, limit theorems, sampling distributions, basic elements of estimation and hypothesis testing and simple linear regression. Prerequisite: MAT 153. Cr 4.

### **MAT 382 Statistical Inference**

This course will survey various statistical methods and applications, such as order statistics, MVU estimation including Rao-Blackwell Theorem, completeness and Fisher's information, method of least squares, method of maximum likelihood, confidence intervals, hypothesis testing and uniformly more powerful tests, linear regression and correlation. Prerequisite: MAT 380 or MAT 381. 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, Mann-Whitney Test, Wilcoxon Test, Spearman's Rank Correlation Coefficient, order statistics. Prerequisite: MAT 380 or MAT 381. 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 380 or MAT 381. 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 380 or MAT 381. Cr 3.

### **MAT 390 History of Mathematics**

The development of mathematics from ancient to modern times. Prerequisites: MAT 152D and COS 280 or MAT 290. 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 431 Selected Topics in Mathematics for Elementary Teachers**

A course designed to provide enrichment topics for the elementary teacher. The course will include such topics as number theory, motion geometry, topology, projective geometry, graphs, and sets and logic. Prerequisites: junior elementary education major and permission of the instructor. Cr 3.

### **MAT 432 Selected Topics in Mathematics for Elementary Teachers**

A course designed to provide enrichment topics for the elementary teacher. The course will include such topics as awareness geometry, transformational geometry, analysis of shapes, number theory, and measurement. Prerequisites: junior elementary education major and permission of the instructor. 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 481 Stochastic Processes**

Introduction to the basic stochastic processes, simple random walk, discrete Markov chains; transition matrices, classification of states, long run behavior, the Poisson processes and related distributions, limiting behavior of birth and death processes, finite state continuous time Markov chains, elements of renewal theory. Prerequisites: MAT 381 and MAT 295 or permission of instructor. 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.

### **MAT 561 Stochastic Models in Operations Research**

Applications of probabilistic analysis to models involving uncertainty; queueing models, inventory control models, and reliability models. Additional topics include: elements of dynamic programming, simulation, and Markov decision analysis. Prerequisite: junior or senior standing; some elementary calculus.

lus including differentiation and integration, elementary probability, and computer programming. Cr 3.

### **MAT 582 Introduction to Time Series Analysis**

Objectives and simple descriptive techniques of time series analysis, probability models for time series, estimation in the time domain, forecasting, Box-Jenkins methodology, spectral analysis. Prerequisite: MAT 380 or MAT 381. Cr 3.

### **MAT 584 Design and Analysis of Experiments**

Quadratic forms and their distribution, general linear hypothesis, completely randomized and randomized block designs, two-way and higher-way layouts, Latin-square and orthogonal Latin-square designs, BIB designs, Youdeen square designs, random effects and mixed effect models, nested designs and split-plot designs are some of the specific topics to be covered. Prerequisites: MAT 295 and MAT 380 or MAT 381 or permission of the instructor. Cr 3.

### *Mathematics Education*

### **MEO 200-201, 300-301, 400-401 Cooperative Education in Mathematics**

The student has the opportunity to relate academic

knowledge to practical experience in a job situation. The University makes arrangements with certain institutions, businesses, and industries to employ qualified students for specific jobs for a set time period. The student's work is ordinarily in a related field, and the work experiences increase in difficulty and responsibility as the student progresses through the sequence of courses. The experiences are approved on a case-by-case basis by the department. Evaluation is done with the employer and a faculty supervisor. Open to qualified students, subject to availability of suitable jobs. Cr 1-5.

### **MME 345 Teaching Mathematics in the Secondary School**

Critical study of programs and techniques for teaching and learning mathematics in grades 7-12 for the slow, average, and advanced pupil, with the use of instructional media. Prerequisite: EDU 100, EDU 200, HRD 333J, and 30 credit hours towards a mathematics major, or permission of the instructor. Cr 3.

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## **Music**

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*Chair of the Department:* Ronald F. Cole, 102A Corthell Hall, Gorham

*Professors:* Bowder, Cole, Martin, Russell; *Associate Professors:* Atterbury, Boden, Fithian, Parchman; *Assistant Professors:* Golan, Harris, Kargul, Reeves; *Lecturer:* Freeman

*Applied Music Faculty Piano:* Thomas Bucci, Ronald Cole, Robert Glover, Laura Kargul, Janet Reeves; *Organ:* Brian Frank; *Voice:* Ellen Chickering, Bruce Fithian, Linda Freeman, David Ripley; *Violin:* Lawrence Golan, Leslie Perna; *Viola:* Lauri Kennedy, Leslie Perna; *Cello:* James Kennedy, William Rounds; *Bass:* Henry Peyrebrune; *Flute:* Alison Hale, Susan Thomas; *Oboe:* Neil Boyer; *Clarinet:* Thomas Parchman; *Saxophone:* Bill Street; *Bassoon:* Ardith Freeman; *Trumpet:* John Schnell; *French Horn:* John Boden; *Trombone:* Mark Manduca; *Euphonium:* Donald Rankin; *Tuba:* Donald Rankin; *Percussion:* Nancy Smith; *Harp:* Jara Goodrich; *Classical Guitar:* Keith Crook, Michael Katz; *Jazz Guitar:* Tony Gaboury; *Jazz Bass:* Marty Ballou; *Jazz Drums:* Les Harris; *Jazz Piano:* Janet Reeves

The Department 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 majoring in elementary education, and 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 chair of the Music Department.

### *Music Fees*

An applied music fee of \$60.00 per semester for hour lessons, or \$30.00 per semester for half-hour lessons will be charged all music majors in addition to the University tuition fee. Applied lessons for music majors, beyond those required for the degree, will be subject to a fee of \$180.00 for half-hour lessons and \$360.00 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 \$60.00 per semester for hour lessons and \$30.00 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 \$180.00 for half-hour lessons or \$360.00 for hour lessons in addition to the University tuition fee.

Students registering for applied music must report to the chair of the Department for assignment to an applied music teacher and scheduling of lessons. All fees must be paid before lessons commence.

### ***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 standardized musical achievement test.

Students who desire to apply for advanced standing in music curricula should apply to the chair of the Department for a special examination.

### ***Department Standards***

Each student enrolled in the music education degree program will play a jury exam on his or her major instrument at the end of each academic year. Each student enrolled in the performance degree program will play a jury exam on his or her major instrument at the end of each semester. The jury panel will determine a level of performance and submit a written evaluation which will be included in the student's file. Students are required to perform at the appropriate level of competence as established by the music faculty.

Each student must earn grades of C- or better in all courses which count toward fulfillment of major requirements. D and F grades do not fulfill prerequisite requirements. However, an exception will be made for the following sequence courses: Theory I, II; Basic Conducting, Instrumental Conducting, and Choral Conducting. In these courses a grade of D will allow the student to progress to the next semester in the sequence. 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. If a student fails in the second attempt to pass a course with a grade of C- or better, he or she will not be allowed to continue as a music major or minor.

Each student must attain a 2.25 minimum grade point average before being admitted to junior or senior level music major courses. Students who fall below academic or applied music standards will be placed on probation and will be suspended if they do not meet these standards by the end of the following semester.

### ***Programs and Requirements***

#### ***Music Core Requirements***

Each student enrolled as a major in a music degree program will take the following courses during his or her first and second years:

MUS 120G, 121G, 220G, 221G	History of Music
MUS 130F, 131, 230, 231	Music Theory
MUS 132, 133, 232, 233	Sight Singing and Ear Training

#### ***Concert Attendance Policy***

All music majors and minors are required to attend a number of concerts and recitals each semester in order to maintain good standing in the Department. 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)***

The degree of bachelor of music in music education prepares students for careers in music teaching. Students completing this course of study receive public school music certification for kindergarten through high school. Since 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 general 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: 99; vocal concentration: 98; or general concentration: 101.

All students are reminded that, in addition to meeting Departmental 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 20 hours of professional education courses: MUE 100 Introduction to Music Education; MUE 220 Studies in Historical Foundations and Learning Theories of Education; MUE 400 Student Teaching; HRD 333J Human Growth and Development; and MUE 422 Music for Exceptional Children.

Additionally, all music education majors will meet the following requirements:

1. Fulfillment of minimum requirements in both voice and piano, regardless of major instrument.

2. Successful completion of 3½ credit hours in Chorale and 3½ credit hours in the appropriate major instrumental ensemble (Concert Band or Chamber Orchestra). Students who do not meet the audition requirements of either Concert Band or Chamber Orchestra will be assigned to Percussion Ensemble. Pianists will satisfy 1 credit of this requirement through accompaniment. Guitarists may take up to 1 credit of this requirement in chamber music. All transfer students must complete a minimum of 1 credit of the appropriate major ensemble at USM.
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 7 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 ensemble performance. 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.

**Piano Proficiency Requirement** Students must enroll in applied piano each semester until the requirement is met. The proficiency exam must be taken at the end of four semesters of study. If it is not passed, further study will be at the student's own expense. The piano proficiency must be passed by the end of the third week of the semester before student teaching.

New students who feel prepared to meet the requirement may schedule an exam during the orientation period. Thereafter, exams will be offered at the end of each semester and may be taken whenever the student and the applied music teacher feel the student is qualified.

Requirements for the exam are as follows:

- a) Play all major and minor scales (two octaves, hands together in eighth notes, mm ♩ = 72);
- b) Play a prepared piece, or pieces, of the student's choice of at least the difficulty of a sonatina by Clementi or Kuhlau (minimum 5 minutes);
- c) Play *America, America the Beautiful* and *The Star Spangled Banner*;
- d) Offer a representative list of music studied on piano;
- e) Prepare in 24 hours an assigned folk melody with chordal accompaniment and a notated piano accompaniment as found in a standard public school music text;
- f) Sight read a folk melody with chord symbols and a notated piano accompaniment as found in a standard public school music text.

**Vocal Proficiency Requirement** All students in the music education program must complete at least one year of vocal study before student teaching. They must also pass the following requirements in a vocal proficiency examination before graduation:

1. Demonstrate and explain the principles of singing, including posture, breathing, tone production, and articulation.
2. Submit a list of 12 songs, including songs in English and at least one foreign language.
3. Perform from memory six songs, at least one of which is in a foreign language.

If the proficiency is not met after four credits of study, the student will continue to study for no credit at his or her own expense until this standard is met.

**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: the equivalent of two days of assisting classroom teachers in music, serving in a capacity similar to teacher aides.

Junior year: elementary and secondary methods courses wherein students observe, plan, and teach using actual classroom situations.

Senior year: student teaching that encompasses both elementary and secondary as well as instrumental and vocal areas.

### **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
MUE	322	Elementary General Music Methods



For instrumental concentration, these additional courses must be completed:

*MUE	225	Woodwinds II
*MUE	321	String Class-Viola, Cello and Bass
*MUE	324	Instrumental Methods
*MUE	420	Marching Band Techniques

For vocal concentration, this additional course must be completed:

*MUE	323	Secondary Choral Methods
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For general concentration, these additional courses must be completed:

*MUE	225	Woodwinds II
*MUE	324	Instrumental Methods
*MUE	323	Secondary Choral Methods

### *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	201F	Applied Music Minor, 5 credits
MUS	244	Basic Conducting
MUS	420	Orchestration
MUS	442	Recital Class (seven semesters)
MUS	401F	University Chorale (seven semesters)
MUS	402F	Concert Band (seven semesters)

#### **OR**

MUS	400F	Orchestra (seven semesters)
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The following courses apply to each specialized music education curriculum.

Instrumental concentration:

MUP	201F	Voice Lessons (2 semesters)
*MUS	344	Instrumental Conducting
*MUS	240, 340	Instrumental Conducting Lab

Vocal concentration:

MUP	201F	Voice Lessons (not additionally required of voice majors) (2 semesters)
*MUS	255	Guitar
*MUS	345	Choral Conducting
*MUS	241, 341	Choral Conducting Lab
*MUE	226	Vocal Pedagogy
MUS	404	Opera Workshop
THE	290	Oral Interpretation of Literature (not required, but strongly recommended)

General concentration:

MUP	201F	Voice Lessons (not additionally required of voice majors) (2 semesters)
*MUS	255	Guitar
*MUS	344, 340	Instrumental Conducting & Lab

#### **OR**

*MUS	345, 341	Choral Conducting & Lab
MUS	404	Opera Workshop

### *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: 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 degree program.

Music Core Requirements, 28 credits

*MUS	320	Seminar in Music History
*MUS	330, 331	Form and Analysis I, II
*MUS	332	Counterpoint

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 the appropriate major ensemble at USM.

Music Electives (9 credits)

Electives including language proficiency, but not music electives (40 credits)

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 (\*) are offered on a rotating basis. Students should work closely with their advisor 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, 331 Form and Analysis I, II

\*MUS 332 Counterpoint

MUS 442 Recital Class (eight semesters)

\*MUS 356 Diction for Singers (voice majors only)

MUP 203 Applied Music, Major Instrument (eight semesters)

MUS 372 Pedagogy of the Major Instrument

Music Electives (9 credits)

Performance Ensembles (6 credits)

Electives in any college (15 credits)

Diction for Singers (MUS 356) is 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 two foreign languages either by exam or through completion of the second semester of the basic course in the Department of Foreign Languages and Classics.

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. Guitar majors must complete 6 credit hours in chamber music or playing guitar in a conducted ensemble. Jazz concentration majors must complete 4 credit hours in jazz ensembles (MUS 407 Jazz Ensemble or MUS 406 Chamber Music) and 2 credit hours in major ensembles. All transfer students must complete a minimum of 1 credit of the appropriate major ensemble at USM.

All performance majors are required to pass a piano proficiency examination or to complete successfully two years of piano as a minor instrument. The content of the exam is appropriate to the student's major. In addition, 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 B.S. 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: 95.

Courses marked with an asterisk (\*) are offered on a rotating basis. Students should work closely with their advisor in planning their course of study in this concentration.

Music Core Requirements, 28 credits		
*MUS	206	Jazz History
*MUS	380, 381	Jazz Improvisation I, II
MUS	330 or 331	Form and Analysis I or Form and Analysis II
*MUS	337	Jazz Arranging
*MUS	374	Jazz Pedagogy
MUP	201, 202, 203	Applied Music, Major Instrument (eight semesters)
Jazz Ensembles 4 credits in any of the following:		
MUS	407	Jazz Ensemble
MUS	406	Chamber Music: Vocal Jazz Ensemble
MUS	406	Chamber Music: Jazz Combo
Major Ensemble (2 credits)		
Music Electives (6 credits)		
Electives in any college (15 credits)		

A student is expected to be enrolled in the appropriate ensemble whenever registered as a full-time student.

All students enrolled in the jazz concentration are required to pass a piano proficiency examination or to complete successfully two years of jazz piano as a minor instrument.

Students in the jazz concentration must complete satisfactorily a full recital in the senior year which includes both traditional and jazz repertoire. The recital contains 50 minutes of music, including 25 minutes of jazz repertoire and 25 minutes of traditional repertoire. (Exceptions to the traditional portion of the recital requirement for rhythm section instruments may be granted by petitioning the faculty.) The jazz repertoire shall demonstrate the student's skills at improvisation and composition or arranging. Jazz students must consult with the director of jazz studies prior to choosing repertoire for the jazz portion of the recital and must perform this material at a recital hearing at least one month prior to the recital date. Jazz students will be expected to achieve the same jury levels and recital requirements on the traditional applied instrument as are required of music education majors.

Students in the jazz concentration, with the exception of rhythm section instruments (guitar, piano, drum set, or bass), must take 24 credit hours of applied music in the traditional area of study. Jazz students whose major instrument is a rhythm section instrument should divide their applied credits equally between traditional applied studies and applied credits in jazz guitar, jazz piano, jazz drum set, or jazz bass, under the guidance of their advisor.

### *Minor in Music Education*

The minor program is designed to provide an opportunity for potential educators who demonstrate interest and ability to continue music studies beyond the high school level and to equip them to implement successfully in their classrooms the planned programs recommended by music supervisors.

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

MUS 100G; MUS 130, 131; MUS 132, 133; MUE 322; and MUP 201F (2 semesters) comprise the minor. Additionally, students must take an elective in music history and other music electives for two credits.

### *Minor in Music (Bachelor of Arts)*

This minor program is designed to provide an opportunity for candidates for the degree of bachelor of arts who demonstrate interest and ability to continue music studies at the undergraduate level.

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 20.

The minor consists of elective courses in music and ensembles. However, MUS 100G, MUS 110F, and all MUE courses are not acceptable for the minor.

Applied music fees, to a maximum of eight credit hours, will be subsidized by the University only when the student demonstrates adequate proficiency.

## *Courses Primarily for Non-Majors*

### **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 half-hour lesson per week for twelve weeks. Restricted to non-majors and certain music students. May be repeated for credit. Special fee assessed. Cr 1.

### **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 non-majors and certain music students. May be repeated for credit. Special fee assessed. Cr 2.

**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 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 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 204 Symphonic Literature**

A survey of music for the symphony orchestra from the pre-classical period of C.P.E. Bach to the present. Open to all students. Cr 3.

**MUS 205G Chamber Music Literature**

An historical survey of the literature for chamber ensembles from the classical period to the present. Recorded and live performances will be studied in class. Open to all students. Cr 3.

**MUS 211 Class Piano**

Practical class piano for the elementary teacher with little or no piano background. Course covers note reading, scales, accompaniment of simple songs, transposition, and sight reading. Open to all students. Cr 2.

**MUS 334F Electronic Music I**

Lectures, discussions, and exercises in sound generation and processing, with emphasis on voltage-controlled systems. The student's time will be divided between class sessions and actual work in the electronic studio. Open to all students. Cr 3.

*Music Performance Groups*  
*Major Ensembles*

**MUS 400F Chamber Orchestra**

Cr 0.5.

**MUS 401F The University Chorale**

A choral ensemble of students from all departments. Performances of large works with instrumental accompaniment and a capella works, including representative repertoire from all periods. Local performances and a spring tour. 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. Cr 0.5.

**MUS 405F The Chamber Singers**

A select group of twenty-five singers specializing in music from the renaissance to the contemporary. Cr 0.5.

**MUS 408F Wind Ensemble**

Cr 0.5.

*Small Ensembles***MUS 403 Percussion Ensemble**

A percussion ensemble open to all University students through 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. A vocal performance major may take this ensemble twice in lieu of one credit of chamber music. 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.

### **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. 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. Cr 0.5.

### *Courses for Majors*

#### *Music History and Theory*

### **MUS 120G History of Music I**

A survey of Western and non-Western music and a unit on Medieval music. Representative examples are played, analyzed, and discussed, with special focus on the development of listening and research skills. Music majors only or permission of the instructor. Cr 3.

### **MUS 121G History of Music II**

Renaissance and Baroque periods; a continuation of MUS 120G, beginning with Ockeghem and Josquin through Bach and Handel. The elements of musical language and style are traced through representative composers' works. Listening, analysis and independent research are required. Music majors only or permission of the instructor. Cr 3.

### **MUS 130F Music Theory I**

Major and minor scales; intervals, triad, and chord connections; cadences; harmonization of soprano and bass lines utilizing primary triads. Music majors only or permission of the department. 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**

Triads in first and second inversion; modulational; non-harmonic tones (passing, auxiliary, appoggiature, suspension, and anticipation); dominant seventh chord (root position inversion, regular and irregular resolutions). 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. Cr 1.

### **MUS 133 Sight Singing and Ear Training II**

A continuation of MUS 132. Prerequisite: MUS 132. 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 History of Music III**

Classical and romantic periods; historical development and musical practices from the establishment of the sonata, string quartet, and symphony, through program music, music-drama, and the rise of nationalism in music. Works of outstanding composers are played, analyzed, and discussed. Music majors only or permission of the instructor. Cr 3.

### **MUS 221G History of Music IV**

Contemporary period; continuation of MUS 220, from Impressionism to recent tendencies. Melodic, harmonic, rhythmic, and structural features of twentieth-century American and European music and their relationship to tradition. Music majors only or permission of the instructor. Cr 3.

### **MUS 230 Music Theory III**

Diatonic seventh chords; modulation; expansion of nonharmonic tones; altered chords; Neapolitan sixth; augmented sixth chords; chromatic alterations; chorales and their harmonizations; composition in simple forms of the 18th and the 19th centuries. Prerequisite: MUS 131. Cr 3.

### **MUS 231 Music Theory IV**

Contemporary techniques of composition; 20th-century harmony, theory, and related studies. Prerequisite: MUS 230. 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 320 Seminar in Music History**

A concentrated study of selected topics in music history based on individual research. Prerequisite: History of Music I, II, III, and IV. 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 department. Cr 2.

### **MUS 330 Form and Analysis I**

Study and analysis of music of the classical, romantic, and contemporary periods with emphasis on homophonic forms and styles. Prerequisite: MUS 131. Cr 3.

### **MUS 331 Form and Analysis II**

Study and analysis of music of the baroque and con-

temporary periods with emphasis on contrapuntal forms and styles. Prerequisite: MUS 131. Cr 2.

### **MUS 332 Counterpoint**

Tonal counterpoint. The process of invention and fugue as exemplified in the music of the baroque era. Prerequisites: MUS 230 and MUS 331. 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 497 Directed Study in Composition**

To provide juniors and seniors who have demonstrated 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 demonstrated 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. Departmental permission required.

Cr 1-3.

## *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. Cr 2.

### **MUP 203 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 B.M. performance majors. May be repeated for credit. Special fee assessed. Cr 3.

### **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**

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 244 Basic Conducting**

Practical conducting experiences; score reading, basic beat patterns, gestures, and interpretation. Prerequisite: MUS 230. Cr 2.

### **MUS 255 Guitar**

An introduction to basic guitar skills. Emphasis is placed upon those skills that lead to playing effective accompaniments. Cr 1.

### **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**

Organization, training, and directing of choruses and glee clubs in high schools and junior high schools. Study and practice in rehearsal techniques, problems of diction, and emphasis on repertoire and musical style. Prerequisite: MUS 244. Cr 2.

### **MUS 356 Diction for Singers**

A study of the principles of English, Italian, German, and French diction through use of the International Phonetic Alphabet (IPA). An application of these basic principles to art songs in the four languages. Students shall perform songs in all four languages. This course is required of voice performance majors. Prerequisite: 3 semesters of voice study. 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 department. Cr 2.

**MUS 374 Jazz Pedagogy**

A study of the teaching methods and materials in the jazz education area. Emphasis will be placed on jazz ensemble literature and conducting techniques, beginning improvisation and writing techniques, securing employment in the jazz field, and promotion of a jazz curriculum within the schools. Prerequisite: open to music majors of junior standing. Cr 2.

**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 442 Recital Class**

Performance in major field, stage deportment, and evaluation of performances. May be repeated for credit. Cr 0.

**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.

*Music Education***MUE 100 Introduction to Music Education**

This course will provide an introduction to varied music programs found in schools, K-12. Students will explore the value of music education. An overview of effective teaching techniques will be presented and students will participate in structured observations. Restricted to music majors and minors. Prerequisite: None. 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: None. 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. 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: Violin**

Class methods and materials in teaching violin. Fundamentals of violin, including bowing, tone production, intonation, and fingering techniques extended into the third position. Prerequisites: MUS 131 and 133. Cr 1.

**MUE 321 String Class: Viola, Cello and Bass**

String methods and materials for beginning strings. Fundamentals of viola, cello and string bass. Rudiments of fingering, bowing, and tone production. Prerequisite: MUE 320. Cr 1.

**MUE 322 Elementary General Music Methods**

Study of methods and materials in present elementary school music education, including those of Kodaly and Orff. Restricted to junior and senior music majors and minors. Cr 3.

**MUE 323 Secondary Choral Methods**

Techniques and procedures for teaching choral music in junior and senior high schools. Restricted to junior and senior music majors. Cr 3.

**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 3.

**MUE 400 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 are provided which encompass both elementary and secondary as well as instrumental and vocal areas. Cr 12.

**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 development, 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.

### **MUE 422 Music for Exceptional Children**

A survey of learning styles of exceptional children.

Practicum in instructional adaptations for mainstreamed children. The content and implications for music educators of P.L. 94-142. To be taken concurrently with EDU 324, Student Teaching. Prerequisites: MUE 322 or equivalent and HRD 333J. Cr 1.

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## Philosophy

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*Chair of the Department:* Julien S. Murphy, 47 Exeter St., Portland

*Professors:* Gavin, Grange, F. Schwanauer; *Associate Professors:* Caffentzis, Conway, Loudon, Murphy; *Assistant Professors:* Tougas, Wininger

"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 problem-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 self-expression, 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' ability 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 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.

## ***Programs and Requirements***

### ***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. The first two of these, which need not be taken in sequence, must be PHI 310I (Ancient Philosophy) and PHI 330I (Early Modern Philosophy). Thereafter, any two additional courses in the history of philosophy may be taken. These courses are PHI 315I, PHI 320I, PHI 340I, PHI 350I, PHI 360I, PHI 370I, PHI 380I.

In the last year a senior tutorial is **optional**. This tutorial 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 tutorial. Upon completion of the paper, an oral examination will be conducted by the full Department. Upon successful completion of the senior tutorial, honors status is granted if a student's GPA in philosophy is at least 3.33. If the tutorial option is not taken, students must complete a Senior Seminar (PHI 400, 401, 402).

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 should include two courses in the history of philosophy: PHI 310I, PHI 315I, PHI 320I, PHI 330I, PHI 340I, PHI 350I, PHI 360I, PHI 370I, PHI 380I.

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#### **PHI 101E Introduction to Philosophy: Free Will and Determinism**

Is there a human will at all? This course will concentrate on the issue of freedom vs. determinism. The importance of the human will insofar as it influences views of experience, politics, society, etc., will also be considered. Prerequisite: ENG 100C or concurrent. Cr 3.

#### **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, including existentialism and pragmatism,

will be undertaken. Prerequisite: ENG 100C or concurrent. Cr 3.

#### **PHI 103E Introduction to Philosophy: Human Alienation**

Why do human beings picture themselves as alienated from nature and from others? How did the problem of alienation come about? What possibilities exist for overcoming it? This course will deal with these issues and attempt to suggest viable alternatives. Prerequisite: ENG 100C 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: ENG 100C or concurrent. Cr 3.

**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: ENG 100C 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: ENG 100C or concurrent. Cr 3.

**PHI 110E 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. Prerequisite: ENG 100C 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: ENG 100C or concurrent. 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 Ethics in Business**

This course will be an investigation of the wide range of ethical issues confronting business. It will study these issues primarily through an examination of specific case studies of business practices. It will also present various philosophical concepts of what constitutes right conduct and will attempt to see whether these concepts can assist the business person in resolving the ethical problems with which business is faced. 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 220 Philosophy of Art**

Inquiry into the question of whether aesthetic experience is intelligible, or emotional, or both; examination of various theories and interpretations, classic and contemporary. 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 stereotypes. Prerequisite: any PHI 100-level course. Cr 3.

**PHI 225 Philosophical Psychology**

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 Feminist Philosophy**

The course explores the contributions of feminist philosophers to gender analysis and the philosophical assumptions inherent in theories of gender difference, including theories from sociology, biological determinism, physiology, and social construction theory. Examination of gender assumptions may be studied in any of the following applied areas: women's work, women and sports, legal sexual inequality, pornography, and reproductive rights. 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 Theories of Language**

This course examines the nature of language from an interdisciplinary perspective. Philosophy, linguistics, and psycholinguistics will be employed to inquire into the structure and function of language, and its relation to perception and the human mind. Prerequisite: any PHI 100-level course. This course is also offered as COM 275. 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. 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 301 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 315 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 320 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 330 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 340 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 100-level course. Cr 3.

### **PHI 350 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 360 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 370 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 380 Contemporary Continental Philosophy**

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: Husserl, Heidegger, Merleau-Ponty, Sartre, Foucault, Gadamer, Barthes, and Derrida. Prerequisite: any PHI 100-level course. Cr 3.

**PHI 398 Independent Study**

Independent study undertaken under the mentorship of a professor in the department. Prerequisites: a minimum of two (2) 300-level philosophy courses plus written permission of the instructor involved. Cr 3.

**PHI 400, 401, 402 Seminar in Philosophy**

These numbers are used to indicate seminar courses dealing with a specific topic or person in philosophy. Topics or individual philosophers will change from year to year and may or may not be repeated. The prerequisite for any 400-level seminar course is two (2) 300-level courses in philosophy, or permission of the instructor. Cr 3.

**PHI 409 Senior 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 Tutorial**

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.

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# Physics

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*Chair of the Department:* Robert Coakley, 254 Science Building, Portland  
*Associate Professors:* Armentrout, Coakley, LaSala, Walkling

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.

In addition to the B.A. program, the USM Physics Department provides the first two years of the courses required for the engineering physics B.S. major at the University of Maine. Students planning to transfer to the Orono campus should contact the USM Physics Department as early as possible to plan courses.

**Programs and Requirements**

*Bachelor of Arts in Physics*

The total number of credits in physics and related areas (exclusive of the University's Core curriculum) required for the physics major: 63. A student majoring in physics must take 37 credit hours of physics courses including some requirements and some electives as outlined below. In addition, 15 credits of mathematics courses, 8 credits of chemistry courses, and 3 credits of computer science courses must be completed.

1. Required courses

PHY 121K,	General Physics I & II with Lab (PHY 111K may replace PHY 121K and 122K with Departmental permission.)
122K, 123, 124	
PHY 211, 212	Modern Physics with Lab
PHY 221	Mechanics I
PHY 223	Electricity & Magnetism I
PHY 240	Intermediate Lab
PHY 291	Special Relativity

2. Electives. In addition to the required courses, the student must take a minimum of 13 credits of physics courses numbered 200 or higher including at least 3 credits from each of groups 1, 2, and 3 below.

Group 1. Classical Physics Courses

PHY	321	Mechanics II
PHY	323	Electricity and Magnetism II
CHY	371	Physical Chemistry

Group 2. Topical Courses

PHY	281	Astrophysics
PHY	269	Radiological Physics
PHY	375	Optics
PHY	251	Electronics
PHY	253	Microprocessor Electronics

Group 3. Advanced Courses

PHY	311	Quantum Mechanics
PHY	440	Advanced Physics Laboratory I

Group 4. Other Electives

PHY	390	Special Topics in Physics
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The physics major must also complete the following courses:

MAT	152D	Calculus A
MAT	153	Calculus B
MAT	252	Calculus C
MAT	350	Differential Equations
CHY	113 & 114	Principles of Chemistry I with Lab
CHY	115 & 116	Principles of Chemistry II with Lab
COS	140	Programming in FORTRAN

OR

COS	160	Programming in PASCAL
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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 121K, 122K, 123, 124 or PHY 111K, 112; PHY 211, 212; at least 6 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 101K or permission of the instructor. Cr 1.

### PHY 105 Acoustics and Noise

A semi-descriptive course on sound, with emphasis on applications of interest to the scientist and non-scientist alike. Discussion will cover the questions: what is sound, how is it perceived, how is it measured, what are its benefits and liabilities? Particular topics may include: the ear and hearing, sound waves, musical acoustics, building acoustics, noise and the environment, legal aspects of noise, underwater sound, biological aspects of sound, and ultrasonics. Consideration will be given to the interests of the members of the class. Three hours of lecture and

demonstration. Occasional field experience may be provided. Prerequisite: a course in high school algebra. Cr 3.

### PHY 109 Radiation: Problems and Effects

An introduction to several current topics of vital importance such as the use of nuclear fission and fusion in power generation, radioactive materials and x-rays in medical diagnosis and treatment, measurement of radiation, safety considerations, and biological effects. Intended to aid the understanding of the non-scientifically trained citizen. Student participation and discussion will be encouraged. Lecture with demonstration and occasional student use of radiation-related equipment, and maximum use of external resources. Prerequisites: None; high school physics and chemistry helpful. One two and one-half hour session per week. Cr 3.

### PHY 111K Elements of Physics I

An introduction to the fundamental concepts of mechanics, sound and heat. Lectures, problem solving, demonstrations, laboratory exercises will be used to develop an understanding of physical phenomena. This course is not recommended for students planning to major in the physical sciences or engineering. Prerequisite: high school algebra. Three hours of lecture, two hours of laboratory, and one hour of recitation per week. Cr 4.

### **PHY 112 Elements of Physics II**

A continuation of PHY 111K introducing the concepts of electricity, magnetism, optics, and modern physics. Prerequisite: PHY 111K or equivalent. Three hours of lecture, two hours of laboratory, and one hour of recitation per week. Cr 4.

### **PHY 121K General Physics I**

An introduction to the fundamental concepts of mechanics, sound and heat, using calculus. This course is recommended for students who plan further study in physical sciences, mathematics, or engineering. It should be taken with PHY 122K. 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 122K General Physics Laboratory I**

Experiments designed to illustrate the concepts studied in PHY 121K. Prerequisite: concurrent registration in PHY 121K or permission of the instructor. Two hours per week. Cr 1.

### **PHY 123 General Physics II**

A continuation of PHY 121K, introducing the concepts of electricity, magnetism, and light, using calculus. This course is intended for students who plan further study in physical sciences, mathematics, or engineering. It should be taken with PHY 124. Prerequisites: PHY 121K or equivalent and one semester of calculus. Three hours of lecture and one and one-half hours of recitation per week. Cr 4.

### **PHY 124 General Physics Laboratory II**

Experiments designed to illustrate the concepts studied in PHY 123. Prerequisite: concurrent registration in PHY 123 or permission of the instructor. Two hours per week. Cr 1.

### **PHY 211 Introductory Modern Physics**

A discussion of the more important topics which show the departure of physics from its classical roots, namely, the nature of atomic particles, methods of determining particle properties, the concept of quantization, atomic and nuclear structure, and radioactivity. Prerequisites: PHY 123/124, or PHY 112, and MAT 152D. Cr 3.

### **PHY 212 Modern Physics Laboratory**

A laboratory course designed to accompany PHY 211. The experiments will illustrate the determination of particle properties, spectroscopy, fundamental constants, radioactive decay, and safe methods of handling radioactive materials. Concurrent registration in PHY 211 is required. Cr 1.

### **PHY 221 Mechanics I**

An intermediate treatment of classical mechanics and wave motion. Prerequisites: PHY 121K, 122K, and MAT 153. Cr 3.

### **PHY 223 Electricity and Magnetism I**

An intermediate treatment of static and current electricity and magnetism, leading to Maxwell's Equations and their applications. Prerequisites: PHY 123, 124, and MAT 153. Cr 3.

### **PHY 240 Intermediate Laboratory**

A sequence of experiments designed to illustrate the more important principles and measurement techniques of mechanics and electricity and magnetism. Prerequisites: one 200-level course and 2 semesters of calculus. Two 3-hour sessions per week. 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 152 or equivalent, or permission of instructor. Cr 3.

### **PHY 253 Microprocessor Electronics and Applications**

A study of microprocessors and microprocessor interfacing. Programming of a representative 8-bit microprocessor will be covered. Laboratory experience will cover both machine language programming and interfacing of the microprocessor. Prerequisites: PHY 251 and any COS programming course. Cr 3.

### **PHY 269 Radiological Physics**

A study of the effects of ionizing radiation on matter, emphasizing principles of radiation measurements, the effects of radiation on living materials, and the safe use of radiation. Prerequisites: PHY 121K, 122K, 123, 124, and one semester of calculus. Lecture 3 hours, laboratory 3 hours. Cr 4.

### **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: Physics 221. Cr 3.

### **PHY 291 Special Relativity**

A study of the special theory of relativity at the intermediate level. This course is intended to complement PHY 211, but may be taken independently of that course. The course meets three hours per week for four weeks. Prerequisites: PHY 121, MAT 153. Cr 1.

### **PHY 311 Quantum Mechanics**

A study of the quantum physics of atoms, nuclei, and particles. Topics covered include wave particle duality; the Schrödinger Wave Equation and its application to a variety of quantum systems, three-dimensional and time-dependent systems, and photons. Prerequisite: PHY 321. Cr 3.

### **PHY 321 Mechanics II**

A study of kinematics and dynamics continuing beyond topics covered in PHY 221. Topics may include Lagrange's equations, Hamilton's equations, mechanics of continuous media, motion of rigid bodies, wave motion. Prerequisites: PHY 221, MAT 350. Cr 3.

### **PHY 323 Electricity and Magnetism II**

A study of classical electromagnetic theory going beyond topics covered in PHY 223. Topics include Maxwell's Equations in differential form and their

application to a number of physical situations, especially electromagnetic waves. Prerequisite: PHY 223. 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 Study in Physics**

A laboratory research investigation of an approved topic in physics, using the facilities of the University laboratories and/or those of industrial and professional laboratories. Prerequisite: consent of the instructor. Cr 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, PHY 212, 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. Optional evening observations with telescopes are included. No prerequisite. Cr 3.

### **AST 103K Activities and Experiments**

A one-credit course meeting weekly for two hours. May be taken concurrently with AST 100K 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: AST 100K. Cr 1.

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## Political Science

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*Chair of the Department:* James Roberts, 126 Bedford St., Portland

*Professors:* Fisher, Maiman, Pattenau, Woshinsky; *Associate Professors:* Coogan, Faksh, Hamilton, Roberts;

*Assistant Professor:* Williams

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 is not intended to prepare students directly for any specific career, but it does provide substantive and analytic background that can lead to a variety of professions. Most obviously it serves those with an interest in entering politics and government. Political science majors go on to become 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. Indeed, some studies have estimated that perhaps one-third of undergraduate majors undertake careers in business. Political science training is also 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 also 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: 36.

Each major must complete POS 101J, 102J, and 103. These courses, which may be taken in any order, are prerequisites for all upper-level courses. *No major will be permitted to take an upper-level course without first having completed these three prerequisites.* A grade of C- or better is required to receive major credit in the Department. Each major must select the balance of required courses from the following, taking at least one course from each of the following five areas of the Department:

*American Political System:* POS 120; POS 201; POS 233; POS 256; POS 257; POS 258; POS 265; POS 283; POS 284; POS 357; POS 358.

*Comparative Political Systems:* POS 235; POS 236; POS 237; POS 238; POS 242; POS 245; POS 247; POS 259; POS 332.

*International Politics:* POS 104J; POS 239; POS 240; POS 249; POS 250; POS 275; POS 385; POS 386; POS 389.

*Political Theory:* POS 289; POS 290; POS 292.

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, 103, 104J, and internships.

Yearly: (Fall) POS 233, 283, 289. (Spring) POS 284, 290. (Either semester) POS 235, 236, 237, 249, 250, 251, 253, 265, 307, 358, 385, 386.

Approximately once every two years: POS 120, 201, 210, 238, 239, 240, 242, 245, 247, 252, 257, 258, 259, 275, 286, 292, 332, 357, 389.

### *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 should take the following courses: POS 101J and POS 102J; three additional courses, to be selected so that three of the five fields within the discipline are represented (see above for the listing of courses within each field); and one additional course in political science. A grade of C- or better in POS required courses is necessary to receive credit toward the minor.

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#### **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 101J is not a prerequisite for POS 102J. Cr 3.

#### **POS 103 Political Science Research Methods**

An introduction to the way political scientists conceive and carry out research projects. Students will learn the scientific method: how to formulate theories, gather data, and test hypotheses. They will be taught how to find political science sources in the library, how to document sources in footnotes and bibliography, and how to conduct legal research in a law library. Students will eventually complete a major research project. This course is required for all political science majors; they are strongly urged to take it during their first or second semester after entering the Department. 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 201 Women and Politics**

An introduction to the way gender affects political behavior. Special attention will be given to the social, psychological, and legal factors which, over the years, have inhibited women from engaging in full-scale political activity. Special consideration will also be given to the way the women's movement and the ideas of feminism have encouraged growing rates of political participation by women. The course will include a thorough review of the different behavior patterns of women and men in politics. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

#### **POS 210 Inter-governmental Relations**

This course examines attempts to bring about social and economic changes through governmental action. Functional and dysfunctional aspects of the political, economic, and social systems are considered. Attempts at intervention are examined through



selected case studies in inter-governmental relations. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 233 The American City**

The city in American political life; types of municipal governments; developments in inter-governmental relations; metropolitan area problems; the future of the city. Students will participate in a task force on a selected urban program. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 235 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. Prerequisites: POS 101J, POS 102J, and POS 103, or permission of the instructor. Cr 3.

### **POS 236 Post-Leninist Politics**

A survey and analysis of those polities (principally East European and Eurasian) that have broken with the classic Leninist model. The course will begin with a description of the former model and will proceed to describe and analyze the political, economic and cultural transformations that are manifesting themselves in these countries. Some consideration may be given to the ideological impact of these developments on world politics. Prerequisites: POS 101J, POS 102J, and POS 103, or permission of the instructor. Cr 3.

### **POS 237 Government and Politics of Russia**

An introduction to Russia in the Soviet and post-Soviet 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. Prerequisites: POS 101J, POS 102J and POS 103, or permission of the instructor. Cr 3.

### **POS 238 Canadian Government and Politics**

An introduction to political life in Canada. Primary topics to be covered in the course: Canadian political culture, voting behavior, the parliamentary system, federalism, political parties, and interest groups. The place of Quebec and French-speaking Canadians within the Canadian political system will be given special emphasis. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 239 Russian Foreign Policy**

A survey of Russian foreign policy in the Soviet and post-Soviet periods. Major topics include: the Comintern and the Popular Front: impact of World War II; the emergence of the USSR as a superpower; and post-Stalin modifications. Case studies in contemporary foreign problems. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 240 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. Prerequisites: POS 101J, POS 102J, and POS 103, or permission of the instructor. POS 104J is recommended. Cr 3.

### **POS 242 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 historical-cultural, and political-ideological forces influencing political institutions and behavior in Egypt, Iraq, Syria, Israel, Jordan, and Lebanon. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 245 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. Prerequisites: POS 101J, POS 102J, and POS 103, or permission of the instructor. Cr 3.

### **POS 247 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. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 249 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. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 250 International Terrorism**

One of the most puzzling aspects of international relations today is the extent to which terrorist methods seem to be effective. Terrorist attacks, guerrilla actions, and subversion are increasingly significant as means of access to power. Terrorism is "subwar," but appears to achieve results that might not be matched by entire armies. Why is this? Is the nation-state, center of power and authority in the international system for centuries, unable to meet the challenges of today's world? How do we explain the rise, develop-

ment, and success of the new forces that seek to achieve control at both the national and international levels? The purpose of this course is to explore these questions as a basis for understanding a critical phenomenon of our time. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 251 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?" Prerequisites: POS 101J, POS 102J, and POS 103, or permission of the instructor. Cr 3.

### **POS 252 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. Prerequisites: POS 101J, POS 102J, POS 103, and POS 251, or permission of the instructor. Cr 3.

### **POS 253 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. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. 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. Prerequisites: POS 101J, POS 102J, and POS 103, or permission of the instructor. Cr 3.

### **POS 257 Political Parties**

Development and present organization and operation of the American party system. Nature and function of major and minor parties, sectionalism, nominating system, presidential and congressional elections, the electorate, finance, interest groups. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 258 Public Opinion and Electoral Behavior**

The role of public opinion in the American political system; definition and measurement; sociological and

psychological influences; mass media; linkages to government; the role of public opinion in other nations; voting and presidential elections. A major segment of the course will be devoted to the construction, implementation, and analysis of a public opinion poll. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 259 Psychology and Politics**

This course is an introduction to the psychology of political behavior. It will examine various theories of personality and motivation that explain why people act as they do in politics. It will focus on such questions as: Can "national character" explain political differentiations? What are the psychological causes of political extremism and mass movements? Are there "authoritarian" and "democratic" personalities? What are the needs or drives that lead people into full-time political activity? The bulk of the course will focus on elite, rather than mass, behavior. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 265 Environmental Politics**

An analysis of the political issue of environmental quality. The role of public opinion, Congress, the courts, interest groups, the presidency and bureaucracy in environmental policy formulation and implementation will be examined in historical perspective. Specific issue areas in environmental policy at national, state, and local levels of government will be surveyed with discussion of intergovernmental relations and jurisdictional questions. Alternative approaches for dealing with ecological problems will be discussed. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 275 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. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 283 The American Judicial System**

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, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 284 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, POS 102J, and POS 103 or permission of the instructor. POS 283 is recommended. Cr 3.

### **POS 286 Administrative Law**

The law made by and for administrative agencies. Topics include delegation, standing, judicial review, and the merits and demerits of "discretionary justice." Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. POS 283 or 284 is recommended. Cr 3.

### **POS 289 Political and Social Thought I**

An intensive study of ancient political and social philosophies. A textual criticism of the works of Plato and Aristotle is emphasized. Prerequisites: POS 101J, POS 102J, and POS 103, or permission of the instructor. Cr 3.

### **POS 290 Political and Social Thought II**

A study of selected political theories from Machiavelli to modern political philosophers. The basic approach is historical, but an attempt is made to relate theories of politics to the environments in which they developed. Prerequisites: POS 101J, POS 102J, and POS 103, or permission of the instructor. Cr 3.

### **POS 292 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. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 332 Comparative Political Behavior**

This course provides an introduction to the study of government and politics from a comparative perspective. It is designed to help students gain knowledge of the world's diverse political structures and behavior, and to expose them to a number of approaches to understanding political phenomena in different national contexts. This course will address topics related to political socialization, political culture, regime types, problems of political change and revolution, and the role of the military in the politics of new states. Prerequisites: POS 101J, POS 102J, and POS 103, or permission of the instructor. Cr 3.

### **POS 351 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 only to selected students. Participation in a seminar is required. Cr 6.

### **POS 352 Internship in Private and Semi-Public Organizations**

Provision may be made to gain professional experience in administration and research. The course is open only to selected students; see Department chair for details. Students will meet for a series of internship seminars, for which readings and reports will be required. Cr 6.

### **POS 353 Municipal Administration Internship**

Provision may be made to gain professional experience in a local government. The course is open only to selected students; see Department chair for details. 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. Cr 6.

### **POS 354 State Internship**

Provision may be made to gain professional experience in a department or agency of state government. The course is open only to selected students; see Department chair for details. 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. Cr 6.

### **POS 355 Congressional Internship**

Provision may be made to gain professional experience in the local offices of Maine's U.S. Congressmen and Senators. The course is open only to selected students; see Department chair for details. Students will meet for a series of internship seminars, for which readings and research reports are required. Cr 6.

### **POS 356 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 only to selected students; see Department chair for details. Readings and research reports are required. Cr 9.

### **POS 357 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. Prerequisites: POS 101J, POS 102J, and POS 103, or permission of the instructor. Cr 3.

### **POS 358 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. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### **POS 385 Peace and National Security**

An analysis of the requirements for a reduction of global tensions in relation to national security needs. The politics of war and conflict, as well as peace and stability, will be considered. How might we maximize the means of international stability and minimize the risks to national protection? The course will discuss methods of achieving order in a nuclear era and develop relevant tools of analysis for assessing national security policies. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### POS 386 Arms and Negotiation

The proliferation of arms, especially the increase and diversification of nuclear capabilities, makes us hostage to the probability of global destruction. Yet, arms control, superpower detente, and peace movements do not appear to be effective avenues of minimizing the preparations for war. This course will examine arms capabilities both in relation to the growth of tensions and the creation of stability in the world arena. The management of arms will be considered in the light of political processes attendant to war, peace, and the indeterminate condition of neither war nor peace. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

### POS 389 International Law and Organization

Law and order in the international system present a range of problems both similar to and different from law and order in domestic society. Public international law and international organization are attempts to control the violence and anarchy of international society. While these approaches are open to criticism

for being ineffective, they cannot be ignored as integral to the international political process. This course will study the history, theoretical significance, and practical implications of attempts to control international political interaction through law and organization. Prerequisites: POS 101J, POS 102J and POS 103 or permission of the instructor. 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.

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## Psychology

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*Chair of the Department:* Joseph F. Hearn, 512 Science Building, Portland

*Professor:* Gayton; *Associate Professors:* Broida, Brown, Hearn, Sytsma, Thornton; *Assistant Professors:* Hutt, Johnson

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 and 102	General Psychology (3 credits each semester) to be taken as a two-semester sequence
PSY 201D	Statistics in Psychology
PSY 205	Experimental Methodology
PSY 206	Methodology Lab
PSY 223	Child Development
PSY 330	Social Psychology
PSY 333	Psychopathology
PSY 350	Psychology of Learning
PSY 360	Cognitive Processes
PSY 361	Sensation and Perception
PSY 365	Physiological Psychology
PSY 371	History and Systems

Other courses offered by the Department can be taken as electives to complete the 43-hour minimum. PSY 101J and 102 are prerequisites for all additional psychology courses.

In addition, successful completion of the following three non-psychology courses is required for certification as a psychology major. These courses should be completed by the end of the sophomore year:

MAT 100D	College Algebra (Prerequisite for PSY 201D)
BIO 105K	Biological Principles
BIO 111	Human Anatomy and Physiology (Prerequisite for PSY 365)

Psychology 101J and 102 should be elected no later than the sophomore year by students who plan to major in psychology. All majors are required to elect PSY 201D and PSY 205 no later than their junior year. PSY 201D may be taken concurrently with PSY 102. No grade of D in any psychology course will count toward fulfillment of the major requirement.

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, and computer programming.

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 senior year. Students should plan to complete as many psychology courses as possible by the end of the fall semester of their senior year.

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### **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. Cr 3.

### **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 201D 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. Prerequisites: PSY 101J and MAT 100D or permission of the instructor. 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. 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, sensation-perception, 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 220 Developmental Psychology**

A study of the factors in human psychological growth traced from genetic predisposition through the prenatal and postnatal periods, childhood, adolescence, adulthood and aging to death. The major theorists relevant to each developmental period are considered. Prerequisites: PSY 101J and 102. NOTE: This course does not count toward major credit. Cr 3.

### **PSY 223 Child Development**

A systematic study of the behavior and psychological development of children during infancy, preschool, and school-age periods. Analysis of the genetic, prenatal, and postnatal influences on physical, cognitive, and personality development. Prerequisites: PSY 101J and 102. Cr 3.

### **PSY 224 Adolescent Development**

A systematic study of the behavioral and psychological development of the adolescent. The adolescent personality and problems of adjustment in relation to the family, the school, and the community. 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 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 101J 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 330 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 333 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 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. Spring semester only. 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. Fall semester only. 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 352 Psychology of Motivation**

A survey of theory, research methods, and experimental findings related to the search for the determinants of human and animal behavior. The course requires a research paper on a topic of interest to the student, and the planning of an experiment growing out of that interest. Laboratory. Prerequisites: PSY 101J and 102. Cr 3.

### **PSY 355 Research in Personality and Social Psychology**

Examination of current research in personality and social psychology. Intensive experience in designing,

executing, reporting, and evaluating research in personality. 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, mental imagery, 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 or permission of the instructor. Cr 3.

### **PSY 361 Sensation and Perception**

An examination of perceptual processes in selected sensory system. Emphasis is on experimental methodology, research findings, and theoretical interpretations. Prerequisites: PSY 201D and 205. 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: BIO 105K and 111; PSY 101J, 102. 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 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. 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. Spring semester only. 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. Fall semester only. Cr 3.

### **PSY 390 Selected Topics in Psychology**

A critical in-depth investigation of one of various topics and issues in different areas of psychology (e.g., experimental, social, clinical, child-developmental, etc.) Each student is expected to complete a research project on the topic for the semester. Consult the Psychology Department for topics offered.

Prerequisite: permission of the instructor. Cr 3.

### **PSY 400 Research in Psychology I**

This course is open to qualified majors in psychology who wish to conduct research projects. With permission of Department chair. Cr 3.

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## **Social Work**

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*Chair of the Department:* Vincent E. Faherty, 316 Masterton Hall, Portland

*Professors:* Faherty, Romanyshyn (emeritus), Steinman (emeritus); *Associate Professors:* Deprez, Kreisler (emeritus), Lazar, Rich; *Assistant Professors:* Siebold, Wagner; *Field Work Coordinator:* Richfield

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 Department 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. If accepted, the student may complete an M.S.W. degree program in approximately one year instead of two.

Upon entering the University and declaring a social work major, students will meet with the chairperson of the Social Work Department, be given an admissions packet of materials, and will be assigned to a faculty advisor.

To assure consistency and avoid confusion, it is important that social work majors meet with their advisors as early in their education as possible. Advising in the Social Work Department is a mutual process of exploring career objectives, reviewing Departmental requirements, designing the best possible combination of required courses and electives, determining proper course sequencing, and facilitating a productive relationship between the student and the Department.

Admission to the field work component of the curriculum (SWO 41I, SWO 412) occurs after a formal application is submitted, reviewed, and accepted. Criteria for admission to field work include: academic achievement; attainment of junior status; quality of application essay; and suitability for the profession of social work.

Contact the Departmental office for further information and application materials.

During the field work year, each student is placed in a community social service agency approved by the Social Work Department. Placements begin only in the fall semester and continue throughout the 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 Department and in making available field instruction resources including supervision for students of the Department. All students should refer to Departmental guidelines governing field work for more information and directions.

The students of the Department have organized a Social Work Student Association. The organization seeks to facilitate communication between students and faculty, ensure student involvement in Departmental deliberations, provide for professional growth, and respond to issues and problems in the community. Student representatives attend faculty meetings and serve as advisory members on the Department's peer and curriculum committees.

### **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: 40.

The major in social work consists of 40 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.

#### **Required Social Work Courses**

SWO	101J	Introduction to Social Welfare
SWO	201	Introduction to Social Work
SWO	301	Methods of Social Work Practice I
SWO	333	Social Work Research
SWO	334	Social Work Research Laboratory
SWO	370	Human Behavior in the Social Environment

SWO	401	Methods of Social Work Practice II
SWO	402	Methods of Social Work Practice III
SWO	411	Field Work I
SWO	412	Field Work II
SWO	450	Social Problems and Social Welfare Policy
SWO	Elective	Any 300 or 400 Level Social Work Elective

*Note:* Any introductory statistics course (MAT 120D, PSY 201D or SOC 307D) is a prerequisite for SWO 333.

Required Foundation Courses in Other Departments (Substitutions for, or waivers of any of these courses, require the written approval of a student's advisor.)

ENG	100C	College Writing
ECO	201J	Principles of Macroeconomics
BIO	100K	Biological Basis of Human Activity (or BIO 101K Biological Foundations, or BIO 105K Biological Principles I)
BIO	102K	Biological Experiences (or BIO 106K Laboratory Biology I)
POS	101J	Introduction to Government
PHI		(Any Core-designated philosophy course)
PSY	101J, 102	General Psychology I and II
SOC	100J	Introduction to Sociology
SOC	371	Sociology of Minorities

Four other advanced level sociology and/or psychology courses, selected in consultation with the student's advisor, are required. At the student's option, HRD 333J Human Growth and Development is acceptable for one of these four courses; any SWO elective is acceptable for another of these four courses.

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 2.33 at the point of application for field work.

#### **SWO 101J 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 201 Introduction to Social Work**

An introduction to the practice of social work focusing on the nature of intervention, the roles and functions of social workers in the delivery of services in various settings, and beginning practice skills. The course enables a student to make a more informed decision about his or her entry into the profession. Field observation by student required. Prerequisite: SWO 101J. Cr 3.

#### **SWO 266 Concept of Self and the Handicapped Person**

To enhance effective interaction and communication with handicapped persons, issues are examined from the perspectives of society and of the individual (handicapped and non-handicapped). Topics include basic human needs and self-image, independence-dependence, 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**

An introduction to basic concepts and skills in social work interviewing and in the problem-solving approach within the framework of systems theory. The course includes a study of the values and knowledge base of social work skills. Prerequisites: SWO 101J, 201. Cr 3.

#### **SWO 333 Social Work Research**

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 101J; any introductory statistics course (MAT 120 or PSY 201D or SOC 307D). Cr 3.

#### **SWO 334 Social Work Research Laboratory**

The application of research methods to actual social problems or issues relevant to the profession of social work. May be taken concurrently with, or after the completion of SWO 333. Cr 1.

#### **SWO 364 Comparative Social Welfare Systems**

A study of social welfare programs in advanced industrial and in developing societies, in market and non-market economies and in democratic and authoritarian political systems. Prerequisite: permission of instructor. Cr 3.

#### **SWO 367 Relating Professionally to Homosexuality**

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 101J, 201; PSY 101J, 102 and introductory course in biology. 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. Prerequisite: SWO 101J or 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 101J, SWO 201, 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 Substance Use and Abuse: Alcohol and Other Drugs**

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 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 faculty. Prerequisite: Department permission and application prior to registration. Cr var.

#### **SWO 401 Methods of Social Work Practice II**

A continuation of SWO 301 covering application of basic social work skills to areas of practice. Class discussions and assignments are based on field work experience (SWO 411) which must be taken concurrently. Fall semester only. Cr 3.

#### **SWO 402 Methods of Social Work Practice III**

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, SWO 401, and SWO 412 (concurrent). Cr 3.

#### **SWO 410 Management of Social Services**

This course provides a general introduction to the major theories, principles, and methods of management of social service agencies in the public, voluntary, and private sectors. Current and emerging issues facing the social welfare system in the United States, such as accountability, marketing, volunteerism, etc., are introduced. Prerequisite: senior standing or permission of instructor. 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 101J; 201; 401 (concurrent). 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 401, SWO 411, and SWO 402 (concurrent). Cr 6.

#### **SWO 450 Social Problems and 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 201J, POS 101J, and SWO 301 or permission of instructor. Cr 3.

#### **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.

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# Sociology

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*Chair of the Department:* David C. Fullam, 120 Bedford St., Portland

*Professors:* Beirne, Monsen; *Associate Professors:* Anspach, Fullam, Lehman, Messerschmidt; *Assistant Professors:* Bjelic, Kingsland, Perry, Laz; *Adjunct Associate Professor:* Fortinsky

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. Although teaching remains the dominant activity among the more than 15,000 sociologists today, other forms of employment are growing. An undergraduate major in sociology offers valuable preparation for careers in social work, social research, politics, public administration, law, business, and education.

The Department offers degree programs in both sociology and criminology.

**General Sociology** The general sociology curriculum provides students with a broad background and exposure to a range of substantive areas in the discipline. This curriculum affords the greatest degree of flexibility in the selection of courses within the major.

**Minor in Sociology** 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 Schools of Nursing and Business, the College of Education, and non-social science disciplines in the College of Arts and Sciences.

## ***Criminology Program***

The Department of Sociology and Criminology also offers a bachelor of arts degree and a minor in criminology. The program provides an integrated and coherent curriculum focusing on the structures, institutions, and activities that define certain social behavior as criminal in modern society. The minor is intended for those students majoring in other areas of study but who desire systematic exposure to essential aspects of the field of criminology. For more information, please see the catalog entry for Criminology or contact the Department.

## ***Alpha Kappa Delta***

Juniors and seniors who have demonstrated an interest and involvement in sociology, who have completed at least four sociology courses, and who have accumulated at least a 3.0 grade point average in sociology courses are eligible for nomination to Alpha Kappa Delta, the national sociology scholarship and honor society.

## ***Student Involvement***

Student involvement is a high priority for the Department. Students are involved in the research projects of the Department as well as the everyday administrative and advising life of the Department. Representatives of the Sociology Students' Association and the Criminology Students' Association are involved in all Departmental activities and decisions as full voting members of the Department. These student representatives are elected by members of the Student Associations each April, although vacancies sometimes occur during the year. Students who are interested in this kind of involvement are encouraged to talk to Departmental faculty.

## ***Internships***

The Department of Sociology and Criminology offers a strong and on-going internship program. The expanded program helps place students in community agencies and organizations, including neighborhood organizations and a variety of agencies dealing with youth services. Credit internships actively seek to bring together student academic work and community involvement. Students interested in an internship placement are encouraged to meet with Professor Fullam, internship coordinator.

## ***Colloquia***

The Department of Sociology and Criminology sponsors a colloquium series that seeks to bring together faculty and students in active discussion around a variety of topics. Several colloquia are scheduled each semester with faculty, students, or visiting scholars making presentations that serve as the focus of discussion. A schedule of current colloquia is available from the Departmental office.

## ***Program 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.

## *Bachelor of Arts in Sociology*

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 36.

### Required Courses (15 hours)

SOC	100J	Introduction to Sociology
SOC	300	Sociological Theory
SOC	301	Methods of Social Research
SOC	307D	Statistical Methods
SOC	312	Inequality and Power

### One 200-level course from among the following (3 hours)

SOC	200	Field Study
SOC	215J	Criminology
SOC	216	White-Collar Crime
SOC	220	Self and Society
SOC	230	Aging in American Society
SOC	240	Comparative Political Ideologies

### Six 300-level courses from among the following (18 hours)

SOC	310	Social Change
SOC	316	Sociology of Gender
SOC	317	Gender and Crime
SOC	318	Childhood and Society
SOC	320	The Sociology of Literature
SOC	330	Sociology of the Family
SOC	331	School and Society
SOC	333	Sociology of Health
SOC	334	Sociology of Religion
SOC	336	Law and Society
SOC	337	Juvenile Justice
SOC	350	Urban Society
SOC	352	Demography
SOC	357	Organization: Individual and Society
SOC	358	Sociology of Women's Work
SOC	371	Sociology of Minority Groups
SOC	373	Pornography and Violence
SOC	374	Mental Health and Illness
SOC	375	Sociological Perspectives on Deviance
SOC	380	Topics in Sociology
SOC	381	Topics in Social Policy
SOC	385	The Sociology of Soviet Marxism
SOC	390	Individualized Instruction I
SOC	391	Individualized Instruction II
SOC	395	Internship

## *Minor in Sociology*

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

Nine credit hours are required courses; the remainder are electives. Required Courses: SOC 100J; SOC 300; SOC 301; sociology electives\*\*.

\*\*Each student minoring in sociology elects a minimum of three 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.

## *Major Credit and Grade Policy*

There are prerequisites for most major credit courses. See the Departmental course listings for particulars. 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.

### **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 215J Criminology**

This course focuses on the difficult question "What is crime?" and on problems concerning the measurement and distribution of crime. The criminology course examines some of the popular misconceptions and myths about crime, the creation and utility of official and unofficial crime statistics, popular

presumptions about the causes of crime, and the institutional responses to crime in our society. This course is also listed as CRM 215. This course is one of the two basic courses in the Criminology Program, along with Law and Society (SOC 336). Prerequisite: SOC 100J or permission of instructor. Offered each semester. Cr 3.

### **CRM/SOC 216 White-Collar Crime**

This course provides an analysis of the different sociological perspectives on white-collar crime as well as focusing on some specific types of white-collar crime: organized crime, occupational crime, corporate crime, political crime, and state terrorism. The course also discusses what can be done to curb these types of white-collar crime. Prerequisite: CRM/SOC 215. Cr 3.

### **SOC 220 Self and Society**

This course explores the emergence of self as an intersection of biography, history, and social structure. Emphasis is placed on the relationship between intimate definitions of the individual and the social structure within which these definitions are constructed. Topics include but are not limited to the power of social groups, charisma, normality and the politics of experience, the social construction of childhood, and the social construction of gender. Prerequisite: SOC 100J or permission of instructor. Cr 3.

### **SOC 230 Aging in American Society**

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 further develop the sociological perspectives introduced at the 100-level by providing 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 be discussed. The course will include talks by professionals who work with the elderly. Prerequisite: SOC 100J or permission of instructor. Cr 3.

### **SOC 240 Comparative Political Ideologies**

After a presentation and comparison of 20th-century political ideologies and their origins, the influence of these value systems on political action and on current sociological paradigms will be emphasized. Prerequisite: SOC 100J or permission of instructor. 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 socio-cultural settings within which they developed. Prerequisites: one 200-level SOC course or permission of instructor. Offered fall semesters. Cr 3.

### **SOC 301 Methods of Social Research**

Conceptualization and research design, data collection and analysis, logic of inquiry and research techniques. Prerequisite: one 200-level SOC course or permission of instructor. Cr 3.

### **SOC 307D Statistical Methods for Social Research**

Emphasis on the uses of statistics in the organization, interpretation, and presentation of research data. Measures of association and correlation; testing of hypotheses, probability and sampling. Prerequisite: one 200-level SOC course and completion of mathematics proficiency. Offered spring semesters. Cr 3.

### **SOC 310 Social Change**

Analysis of sociocultural factors related to social change and the dynamics of the change process. Prerequisite: one 200-level SOC course or permission of instructor. Cr 3.

### **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: one 200-level SOC course or permission of instructor. Offered spring semesters. Cr 3.

### **SOC 316 Sociology of Gender**

This course investigates gender as a social process which is continually created and reinforced in social life. It explores the often subtle relationship between gender and life chances, and an analysis of gender in economic and cultural history. Sexuality, work, and the feminization of poverty, gender socialization, and feminist utopias will also be topics of investigation. Prerequisite: one 200-level SOC course or permission of instructor. Offered fall semesters. Cr 3.

### **CRM/SOC 317 Gender and Crime**

This course provides a feminist analysis of gender as related to the criminality of both males and females. The course focuses on gender and inequality, the gender bias of criminological theory, and the role gender plays in various forms of criminality, from interpersonal violence to syndicated and corporate crime. Prerequisites: one 200-level SOC course 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. Prerequisites: one 200-level SOC course and junior or senior standing. This course is limited to 25 students. Cr 3.

### **SOC 320 The Sociology of Literature**

This course will introduce students to the possibilities and problems generated by the sociological study of literature which will be addressed as a practice, a produce, and an institution. The course will consider the theoretical and empirical work on the complex relationships between literature and society and

cultural meaning and value. It will also address specific questions relating to the production, distribution, consumption, and preservation of literature such as what is literature, who makes it, who consumes it, and what makes it last. Prerequisite: one 200-level SOC course 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: one 200-level SOC course 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: one 200-level SOC course or permission of instructor.

Cr 3.

### **SOC 333 Sociology of Health**

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: one 200-level SOC course 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: one 200-level SOC course or permission of instructor.

Cr 3.

### **SOC 336 Law and Society**

An examination of the interrelationships between law and society, focusing on law, custom, and morality as well as law in relation to social goals. Specific examples of how law functions in the context of the social structure will be used to highlight the major theoretical models used traditionally in this area. Prerequisite: one 200-level SOC course or permission of instructor. Offered fall semesters.

Cr 3.

### **SOC 337 Juvenile Justice**

Examination and analysis of juvenile justice philosophies, processing, and treatment with an emphasis on historical and comparative materials. Prerequisite: one 200-level SOC course or permission of instructor.

Cr 3.

### **SOC 350 Urban Society**

This course focuses on the sociological study of urban existence, urban policy, and planning. Urban life is examined in context of the political, economic, and organizational aspects of contemporary American society. Topics include approaches to the study of urban society, varieties of urban experience, use of urban space, urban institutions and social problems, selected issues in planning, and policy making. Comparative materials on urban life of other countries are used when appropriate. Prerequisite: one 200-level SOC course or permission of instructor.

Cr 3.

### **SOC 352 Demography**

Fertility, mortality, and migration as they impact on 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: one 200-level SOC course 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: one 200-level SOC course or permission of instructor.

Cr 3.

### **SOC 358 Sociology of Women's Work**

This course will introduce the student to the most recent theoretical and empirical research on women's work in the family and in the paid labor force. Sociological definitions of work, theories of discrimination, and the role of ideology will be examined. Students will evaluate contemporary strategies to equalize pay and employment opportunities. Prerequisite: one 200-level SOC course or permission of instructor.

Cr 3.

### **SOC 371 Minority Groups**

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: one 200-level SOC course or permission of instructor. Offered fall semesters.

Cr 3.

### **CRM/SOC 373 Pornography and Violence**

The course provides a sociological analysis of pornography. Its focus is the feminist debate on pornog-

raphy. Emphasis is placed on such issues as the definition of pornography, its possible harms and benefits, the relationship between pornography and violence, and what should be done about pornography. Prerequisite: one 200-level SOC course 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: one 200-level SOC course or permission of instructor. Offered spring semesters. Cr 3.

### **SOC 375 Sociological Perspectives on Deviance**

The origin and nature of socially disapproved behavior. Analysis of societal interpretations of and responses to the deviant. Prerequisite: one 200-level SOC course or permission of instructor. Offered spring semesters. Cr 3.

## *Topics in Sociology*

### **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: one 200-level SOC course or permission of instructor. Cr 3.

### **SOC 381 Topics in Social Policy**

Occasional courses developed around substantive issues such as poverty, health care, or crime in the area of social policy. Through the examination of concrete policy areas, students can acquire a conceptual knowledge of social policies, their historical and ideological foundations, and an introduction to the techniques of social policy analysis. Prerequisite: one 200-level SOC course or permission of instructor. Cr 3.

### **SOC 385 The Sociology of Soviet Marxism**

This course provides analysis of the key theoretical texts of Bolshevism produced between 1917 and 1936. Against the background of both classical Marxism and the Russian revolutionary tradition, the course focuses on the reception of such concepts as class domination, the dictatorship of the proletariat, socialism, the withering away of the state, and communism. Prerequisite: one 200-level SOC course or permission of instructor. Cr 3.

## *Individualized Instruction and Internships*

### **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 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. Offered each semester. Contact Departmental internship coordinator for details. Cr 4 to 6.

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# Theatre

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*Chair of the Department:* Susan Picinich, Russell Hall, Gorham

*Professors:* Kading, Rootes, Stump; *Associate Professors:* Picinich, Power, Steele; *Assistant Professor:* Kilroy; *Technical Director:* Fauver; *Costumer:* Kinne

The Theatre Department offers a four-year program leading to a B.A. degree in theatre. An undergraduate degree in theatre offers valuable preparation for careers in the theatrical activities on an educational or professional level, as well as other nonrelated disciplines.

All students are reminded that, in addition to meeting departmental requirements for a major, they must also meet the requirements of the College of Arts and Sciences as well as the Core curriculum requirements.

## **Programs and 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 year:

First semester

THE	120	Acting I
THE	130	Theatre Workshop
THE	134F	Production Management

**OR**

THE	135F	Stagecraft I and THE 136F Stagecraft Lab
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Second semester

THE	121	Acting II
THE	130	Theatre Workshop
THE	150H	Play Analysis
THE	134F	Production Management

**OR**

THE	135F	Stagecraft I and THE 136F Stagecraft Lab
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THE 134F and THE 135F/136F are to be taken alternate semesters.

All majors or intended majors are required to take a half unit of theatre workshop (THE 130, 131, 132, 133) per semester.

Theatre students who fail to maintain a 2.5 GPA in theatre courses and a 2.0 overall GPA will not be allowed to participate in any main stage productions in either an acting or technical capacity (except those lab duties or course requirements related to coursework) until the student has raised his/her grades to the required level.

Students are encouraged to meet with the faculty or staff whenever questions arise or problems occur.

The following courses are required:

THE	120	Acting I
THE	121	Acting II
THE	130	Theatre Workshop (to be repeated once)
THE	131	Theatre Workshop (to be repeated once)
THE	132	Theatre Workshop (to be repeated once)
THE	133	Theatre Workshop (to be repeated once)
THE	134F	Production Management
THE	135F	Stagecraft I
THE	136F	Stagecraft Lab
THE	139	Make Up
THE	150H	Play Analysis
THE	170F	Public Speaking or THE 270 Oral Interpretation
THE	220	Acting III
THE	225	Directing I
THE	231G	Costuming I
THE	232	Costuming Lab
THE	235	Stagecraft II
THE	236	Stagecraft II Lab
THE	330	Lighting Design or THE 331 Scene Design
THE	351	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

At the end of the sophomore year, students, after discussion with the faculty, must select an area emphasis by taking 9 additional units selected from one of the following tracks. Each track may have additional requirements (e.g., auditions or portfolios).

*Acting track:* select units from the following: Acting IV, Acting V, Acting VI, Dance

*Directing track:* select units from the following: Directing II, Project I (in directing), any upper division Theatre course

*Literature track:* Playwriting, Journalistic Drama Criticism, Advanced Playwriting, Topics in Dramatic Literature and Theatre History (may be repeated)

*Design/Technical track:* Lighting and/or Scene Design, Advanced Costuming, Topics in Design, Topics in Dramatic Literature and Theatre History

*Vocal Arts track:* Oral Interpretation and/or Public Speaking, Reader's Theatre, Advanced Oral Interpretation, Forensics, Professional Audition and Marketing Techniques, Creative Radio Performance

*General track:* 9 units of upper division theatre courses to be chosen as advised.

### *Media Arts Concentration*

Theatre majors with an interest in radio, television, or film may elect to follow the Media Arts Concentration

in place of any of the Departmental tracks. This 22 unit concentration is offered jointly with the Communication Department and is available with either an *On Camera* or *Production* emphasis. Admission to this concentration is limited and an audition and/or interview is required. Specific requirements and course descriptions are listed in the Communication Department section of this catalog.

### *Theatre Department Production Requirements*

The Theatre Department requires each major to participate in Theatre Department functions by completing Theatre Workshop courses (University course credit) and Theatre Department projects (Department credit only). Credit for these may be earned separately or concurrently according to Departmental guidelines. Each theatre major must complete 4 units of Theatre Workshop (THE 130, 131, 132, 133); 1/2 unit each for 8 semesters. Theatre Workshop courses require, in part, participation in an approved Department project with a point value of 8 or more.

Theatre Department projects are assigned point values (relative to their complexity) by the Theatre Department. Theatre majors must accrue 80 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; and *optional area*—32 points minimum.

A listing of approved projects and their specific point values is available at the Theatre Department 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.

Presence at all strikes for all productions in which the students participate whether as a crew or cast member is required.

### *Student Participation*

The theatre, like so many other disciplines, thrives and, indeed, succeeds in direct proportion to the quantity and quality of group effort. The best theatre “product,” however, can exist only through the participation of all theatre majors, minors, and other interested students.

Many of the courses offered by the Department include laboratory hours in which students participate in the construction of costumes, scenery, properties, and the design of sound and lighting. Thus the student is able to incorporate and apply classroom theory to actual experience.

Southern Maine is fortunate to have any number of theatres producing entertainment at any given time. But, the theatre is a strict and demanding discipline, and the time consumed in production and rehearsal is extensive. Therefore, in order to safeguard students from over-extending themselves unwittingly, the Theatre Department strongly recommends that any major's involvement in theatre activities during the academic year other than those of the University Theatre Department be approved by the Department.

### *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 on permission of instructor and four other courses chosen in consultation with a Theatre Department advisor in accordance with the interests of the student.

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### **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 neo-classic, and 18th, 19th and 20th-century theatre and drama.

Cr 3.

### **THE 102F Acting: Performance**

This course will introduce core students to theatre through the eyes of the performer. The student 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**

Contemporary Dance I is designed for beginning dancers with no formal dance training or no dance training in recent years. This class introduces basic contemporary dance skills and vocabulary. The class is divided equally into two areas of study. Physical and technical development are learned through strengthening and stretching exercises and body isolations. Proper body alignment is stressed for the most energy-efficient and injury-free movement both in and out of class. Dance phrases are designed to teach rhythmic and locomotor skills. Equal time will be devoted to studying choreographic techniques wherein students will learn how dances are created by creating their own. *The Art of Making Dances* by Doris Humphrey, plus selected writings by more contemporary choreographers, will be used in the class. The class will be expected to attend several local



dance performances during the semester. Prerequisite: THE 120 or THE 121 or permission of the instructor. Cr 3.

### **THE 120 Acting I**

This is a practicum course designed to introduce students to basic elements of the creative process of acting. Students will be introduced to body awareness, methods of relaxation and physical elongation, exploration of creative process, freeing the vocal mechanism, elementary stage combat and improvisation. Course culminates with student presentation of a performance piece that has been developed through improvisation. No prerequisite. Cr 3.

### **THE 121 Acting II**

This is a practicum course designed to continue exploring the body/voice relationship through the use of improvisation with emphasis on text. Prerequisite: THE 120. Cr 3.

### **THE 130 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 131 Theatre Workshop II**

A continuation of THE 130. Prerequisite: THE 130. The course may be repeated for credit. Cr 0.5.

### **THE 132 Theatre Workshop III**

A continuation of THE 131. Prerequisite: THE 131. The course may be repeated for credit. Cr 0.5.

### **THE 133 Theatre Workshop IV**

A continuation of THE 132. Prerequisite: THE 132. 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 I**

A lecture/discussion/lab 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 use of shop tools; basic methods of construction, rigging, and moving scenery for the stage. The lecture portion of the course will be supplemented by actual construction, painting and mounting of a major University theatre production. (Concurrent enrollment in THE 136F Stagecraft Lab required.) Cr 3.

### **THE 136F Stagecraft Lab**

A lab course allowing practical application of theory

discussed in THE 135F. (Concurrent enrollment in THE 135F required.) Cr 1.

### **THE 139 Make-up**

The course will emphasize the fundamentals of design and application of theatrical make-up. Specific areas of study will include the use of painted highlight and shadow to alter facial features and the actual application of make-up, giving the student the opportunity to practice realistic and abstract make-up techniques. An additional 30 hours of production work will be required of each student providing the opportunity to apply classroom techniques to the actual performance experience. Cr 3.

### **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 apalytical tools. Prerequisite: ENG 009. 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**

A continuation of THE 172. Cr 1.

### **THE 174 Intercollegiate Forensics**

A continuation of THE 173. Cr 1.

### **THE 203F Contemporary Dance II**

Contemporary Dance II is for a more experienced dance student. Expertise in executing basic dance skills (proper alignment, parallel and turned out positions, slides, triplets) and knowledge of dance vocabulary are assumed. Through practicing more complicated movement exercises and dance patterns students will increase their technical dance skills and understanding of kinesiology. Entire dances or portions of contemporary choreography will be taught in this class. Choreographic work will consist of movement character development using the effort-shape system of movement analysis. This study of movement qualities will be taken from Cecily Dell's work in *A Primer for Movement Description*. Students will be expected to attend several dance performances during the semester. May be repeated once for credit. Prerequisite: THE 103F or permission of instructor. Cr 3.

### **THE 220 Acting III**

This is a practicum course designed to introduce students to basic skills of stage movement and charac-

terization 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 or permission of instructor. Cr 3.

#### **THE 221 Acting IV**

This is a practicum course focusing on methods of personalization, linear objective and plot objective, which are all tools used to explore characterization. Emphasis will also be given to preparation for audition. Prerequisite: THE 220 or permission of instructor. Cr 3.

#### **THE 223 Mime**

Class instruction emphasizes mime technique, basic illusions, body graphics, and silent character studies. Solo and group work integrates elements of these four (4) major areas. Students gain an understanding of the historical perspective of classical mime and its influence on contemporary approaches to the art form. Prerequisite: Fundamentals of Acting (THE 120 or THE 121) or permission of the instructor. 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 225 Directing I**

This course is designed to train students in theatrical organization and rehearsed techniques. It encompasses composition, picturization, movement, and rhythm. Some practicum is involved. Prerequisite: THE 150H or permission. 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. Cr 3.

#### **THE 231G Costuming I**

The course will consist of an introduction to costuming, the techniques and basic materials used in design and construction of an effective production. Costume design will be studied in terms of defining basic elements of line, color, and texture; fulfilling script requirements and analyzing characters; and coordinating with other designers. Sewing skills and rendering techniques will be introduced. The lecture portion of the course will be supplemented by actual construction and mounting of a University theatre production. (Concurrent enrollment in THE 232 Lab required.) Cr 3.

#### **THE 232 Costuming I Lab**

The course is a laboratory session that allows prac-

tical application of theory discussed in THE 231G. (Concurrent enrollment required in THE 231G). Cr 1.

#### **THE 235 Stagecraft II**

A lecture/discussion/lab course in basic theatrical drafting/graphic practices relating to theatrical construction and design techniques. The primary emphasis of the course will be the execution of various types of theatrical design and construction, painting and mounting of a major University theatre production. (Concurrent enrollment in THE 236 Stagecraft Lab required.) Prerequisite: THE 135F or instructor consent. Cr 3.

#### **THE 236 Stagecraft II Lab**

A lab course allowing practical application of theory discussed in THE 235. (Concurrent enrollment in THE 235 required.) 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 150H. Cr 3.

#### **THE 270F 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 271 Creative Dramatics**

Study of problems in 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 272 Creative Radio Performance**

A study in the creation and performance of material designed to be performed exclusively through the medium of radio. Cr 3.

#### **THE 320 Acting V**

This course is an in-depth examination of the use of the actor's voice, drawing particular attention to work with heightened verse, using Shakespearean source material. Emphasis will also be given to preparation for audition. Prerequisite: THE 221. Cr 3.

#### **THE 321 Acting VI**

This is a practicum course for advanced acting problems, making an in-depth study of the plays of one specific playwright (e.g., Chekhov, Ibsen, O'Neill). Emphasis will also be given to preparation for audition, using material from the specific playwright. Prerequisite: THE 221. Cr 3.

#### **THE 325 Directing II**

A continuation of Directing I. Prerequisites: THE

135F, 225; senior status, or junior status with permission of instructor. Cr 3.

### **THE 330 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 135F, THE 235, THE 150H. Cr 3.

### **THE 331 Scene Design**

Lecture and practicum in stage scenic design. Emphasis on the visual art and drafting of designs. Prerequisites: THE 135F, THE 235, and THE 150H or permission of instructor. Cr 3.

### **THE 332 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 231G or permission of the instructor. Cr 3.

### **THE 336 Theatre Management**

Investigation of educational and professional theatre management roles, including: managing director; business manager; box office manager; publicity director; house manager. Practicum required. 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 or permission of the instructor. Cr 3.

### **THE 351 Dramatic Literature and Theatre History I**

A study of the development of theatre and drama from its origins through the medieval period, covering ancient Greek, Roman, and Oriental theatre and drama. Representative authors include Sophocles, Euripedes, Plautus, Seneca, the Wakefield Master, and Chikamatsu. Critics include Aristotle and Horace. Prerequisite: THE 150H for majors, ENG 100C or ENG 101C for non-majors. Cr 3.

### **THE 352 Dramatic Literature and Theatre History II**

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 Castelvetro, Chapelain, Dryden, Johnson and Diderot. Prerequisite: THE 150H for majors, ENG 100C or ENG 101C for non-majors. Cr 3.

### **THE 353G Dramatic Literature and Theatre History III**

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 150H for majors, ENG 100C or ENG 101C for non-majors. Cr 3.

### **THE 354 Dramatic Literature and Theatre History IV**

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. Prerequisite: THE 150H for majors, ENG 100C or ENG 101C for non-majors. 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 225 or by permission. Cr 3.

### **THE 370 Advanced Oral Interpretation**

A continuation of THE 270F. Cr 3.

### **THE 371 Reader's Theatre**

A study of principles and techniques utilized in the performance of a literary work in the Reader's Theatre style. Emphasis is on providing new insights into the material through oral performance. 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 9 credits. Prerequisite: THE 150H for majors, ENG 100C for non-majors. Cr 3.

### **THE 490 Independent Study**

Students should contact the Department regarding information for independent study.

### **THE 491 Project I**

Investigation of special topics, or execution of special projects that fall within the purview of theatre. Students may select an inter- or 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.

Credit hours arranged.

### **THE 492 Theatre Internship**

Students will assume a full one-semester internship with a professional theatre or Reader's 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. To be arranged.

Cr 3-15.

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# COLLEGE OF EDUCATION

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*Dean:* James S. Catterall  
*Associate Dean:* Richard E. Barnes  
*Director of Teacher Education:* Lynne Miller; *Director of Professional Development Center:* George C. Lyons;  
*Director of Center for Applied Research and Evaluation:* David L. Silvernail

The College of Education prepares individuals for careers in teaching and related human service professions. In addition, the College offers courses and programs of study to students from all schools and colleges in the University in the areas of educational theory and application, human development, athletic coaching, and English as a Second Language (ESL).

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## Department of Professional Education

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*Chair:* Charles M. Lyons, 500 Bailey Hall, Gorham  
*Professors:* Cohen, Hodgdon, Miller, O'Donnell, Wood; *Associate Professors:* Amoroso, Austin, Barnes, Bouchard, Broyles, Capelluti, Colucci, Curry, Goldsberry, Kimball, Kissen, Kulawiec, Lyons, Major, Morrill, Silvernail, Smith; *Assistant Professors:* Bouchard, D., Howick, Rees; *Instructors:* Argondizza, Keller; *Professor Emeritus:* Neuberger

### *The Extended Teacher Education Program*

The College of Education has developed the Extended Teacher Education Program (ETEP) to meet the needs of students and teachers for the twenty-first century. The faculty believes that effective teaching is grounded in knowledge, experience, reflection, and a commitment to preparing children and youth for the future. Such teaching encourages inquiry that leads to independent thinking. Teaching is an art, a craft, a science, a collection of skills, and common sense. The College of Education is committed to providing experiences that promote this learning process.

ETEP includes experiences at both the undergraduate and post-baccalaureate levels. Students interested in teaching careers should pursue an undergraduate major appropriate to their teaching goals. For prospective secondary school teachers, this requires a firm grounding in one of the disciplines currently taught in public schools; for middle school teachers, depth of study is required in at least two disciplines. For elementary teachers, a broadly based liberal arts major along with coursework in mathematics, science, social science, and English is required. In addition to fulfilling requirements for an academic major outside of the College of Education, prospective teachers should enroll in the minor in educational studies within the College of Education. The minor is designed to provide the pre-professional competencies and experiences that are necessary for admission to USM's professional teacher education program.

Application to the post-baccalaureate level generally occurs at the end of the undergraduate degree program. Outstanding undergraduates may apply in the fall of their senior year for early admission. Students admitted must complete their undergraduate degree requirements and the minor in educational studies successfully, prior to the start of the post-baccalaureate level. Students who complete an academic major and the minor in educational studies with distinction are strong candidates for admission into the post-baccalaureate program. Completion of the baccalaureate degree and the education minor does not, however, guarantee admission. The post-baccalaureate level involves a full year's internship in an exemplary school site as well as thirty-three credits of graduate coursework in education. Students who successfully complete the post-baccalaureate year will be recommended for the initial teaching certificate in Maine. Upon successful completion of the internship year and the meeting of specific criteria which include the submission and acceptance of a portfolio, students will be invited to continue work towards completion of requirements for the master of science in education degree.

### *Minor in Educational Studies*

The minor in educational studies is open to students in all majors within the University. The minor highlights topics in the areas of human development, teaching as a career, learning, educational media/technology, and schooling. The minor consists of 18 credits:

EDU	100	Exploring Teaching as a Profession
EDU	200	Education in the United States
EDU	210	Theoretical Foundations of Learning
EDU	300	Educational Media and Technology
HRD	333J	Human Growth and Development

Three EDU elective credits approved by the program advisor. They may be EDU 336 Children's Literature (required for elementary teacher candidates), EDU 390 Topics in Education, or other EDU courses.

To gain admission to the minor in educational studies, students must be in good standing at the University with a cumulative grade point average of 2.5 or above. Applicants must complete and submit a signed application for the minor. These forms are available in 500 Bailey Hall, Gorham.

*Note:* Completion of the minor does not guarantee admission to the post-baccalaureate level of the Extended Teacher Education Program.

For more information on the minor in educational studies, contact N.D. Colucci, coordinator, 500 Bailey Hall, Gorham.

### *Course Fees*

A course fee is assessed in EDU 300 and EDU 310.

### *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 15-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.

#### Course of Study in Athletic Coaching (15-credit program)

##### Required

PHE	203	Athletic Training
PHE	302	Coaching Philosophy and Fundamentals
PHE	314	Organization and Administration of Athletics
PHE	391	Field Experience in Coaching

##### Electives

PHE	209	Officiating Basketball
PHE	210	Officiating Field Hockey
PHE	211	Officiating Soccer
PHE	212	Officiating Baseball/Softball
PHE	303	Coaching Basketball, Philosophy and Methods
PHE	311	Coaching Soccer, Philosophy and Methods
PHE	312	Coaching Football, Philosophy and Methods
PHE	315	Coaching Field Hockey, Philosophy and Methods
PHE	316	Coaching Volleyball, Philosophy and Methods
PHE	318	Coaching Gymnastics, Philosophy and Methods
PHE	335	Coaching Baseball and Softball, Philosophy and Methods
PHE	389	Advanced First Aid and CPR

### *English as a Second Language*

The College offers language courses specifically designed for students whose first language is not English:

ESL	301	English as a Second Language: Intermediate
ESL	401	English as a Second Language: Advanced Grammar, Reading and Listening
ESL	402	English as a Second Language: Advanced Written and Oral Production Skills

For more information on these ESL courses contact Bart Weyand, program coordinator, 45 Payson Smith Hall, Portland.

### **EDU 100 Exploring Teaching as a Profession**

An exploration of teaching as a professional career through field-based experiences and faculty-led seminars. Cr 3.

### **EDU 200 Education in the United States**

An examination of issues and problems in education and schooling in the United States from social, historical, political, and philosophical perspectives. Cr 3.

### **EDU 210 Theoretical Foundations of Learning**

An examination of theories of learning and their ap-

plication to motivation, concept development, classroom management, methodology, and evaluation.

Cr 3.

### **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 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 Topics in Education**

A seminar devoted to the examination of a single topic selected because of its significance to the field of education and schooling. Topics may change each semester.

Cr 3.

### **ESL 301 English as a Second Language: Intermediate**

Review of basic and higher level grammatical structures with further emphasis on general listening comprehension, readings in American culture, writing, note-taking skills, and oral production. Designed for students who are pre-TOEFL or need a comprehensive review and practice of the English language skills prior to University matriculation.

Cr 3.

### **ESL 401 English as a Second Language: Advanced Grammar, Reading, and Listening**

An advanced level English language course for non-native speakers of English focusing on developing the receptive skills of reading and listening to authentic English language materials. Emphasis will be placed primarily on more advanced grammatical concepts, developing skills in reading and analyzing academic writing and literature, developing a better lateral vocabulary, and note-taking skills. Prerequisite: ESL 301 or instructor's permission.

Cr 3.

### **ESL 402 English as a Second Language:**

#### **Advanced Written and Oral Production Skills**

An advanced level English language course for those whose first language is not English. The course is designed to help students produce grammatically accurate, well-constructed, coherent English, both in the written and spoken form. Based on the writing process, students will write and rewrite paragraphs and essays drawn from topical and academic readings, works of fiction, and class discussion. Additional focus will be on vocabulary extension and use of idiom. This course is a substitute for ENG 009 and a prerequisite for ENG 100C. Prerequisite: ESL 301 or instructor's permission.

Cr 3.

### **HRD 333J Human Growth and Development**

Please refer to the course description in the Department of Human Resource Development section that follows.

Cr 3.

### **PHE 102 Independent Activities**

This course will allow students to earn credit for doing physical education activities outside the University. Students may select any activity which can be done independently or may enroll in a structured program, such as Y classes, aerobic dance classes, etc. Instructor permission required.

Cr 1 or 2.

### **PHE 103 Physical Fitness**

An aerobic fitness class utilizing any of a number of aerobic activities such as jogging, aerobic dance, calisthenics, etc. These activities are designed to place an aerobic demand on the participants and help promote a general improvement in cardiovascular fitness.

Cr 1.

### **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**

Care and prevention of athletic injuries; the use of proper field equipment, support methods, therapeutic modalities, pharmacology in athletics, and training techniques.

Cr 3.

### **PHE 209 Officiating Basketball**

Study and discussion of the rules with limited practical experience in the techniques of officiating basketball. Course is designed to prepare student for the National Federation Examination.

Cr 2.

### **PHE 210 Officiating Field Hockey**

Study and discussion of the rules of field hockey as well as practical experience in the techniques of officiating. Practical and written tests will be given. Opportunity to become a rated official.

Cr 2.

### **PHE 211 Officiating Soccer**

Study and discussion of the rules of soccer as well as practical experience in the techniques of officiating. Opportunity to become a rated official.

Cr 2.

### **PHE 212 Officiating Baseball/Softball**

Study and discussion of the rules of baseball and softball as well as practical experience in the techniques of officiating. Practical and written tests will be given. Opportunity to become a rated official.

Cr 2.

### **PHE 221 Experiential Education—The Outward Bound Experience—Hurricane Island Outward Bound School (Winter)**

Instruction in the basic and enabling skills in the art of safe mountain travel and winter camping. Course content includes cross-country skiing, snowshoeing, map and compass reading and shelter building. The Outward Bound experience strongly emphasizes leadership development, interpersonal communication, team-building, and group problem-solving. Fee course. 5-day program.

Cr 2.

### **PHE 232 Experiential Education—The Outward Bound Experience—Hurricane Island Outward Bound School (Winter)**

Instruction in the basic and enabling skills in the art of safe mountain travel and winter camping. Course content includes cross-country skiing, snowshoeing, map and compass reading and shelter building. The Outward Bound experience strongly emphasizes leadership development, interpersonal communication, team-building, and group problem-solving. Fee course. 10-day program.

Cr 3.

### **PHE 242 Experiential Education—The Outward Bound Experience—Hurricane Island Outward Bound School (Summer)**

The course has two major parts: (1) training period and (2) final expedition. During the training period students are instructed and participate in sail theory,

navigation, seamanship, first aid, rock climbing, camping skills and environmental awareness. The final expedition is designed to allow the student an opportunity to demonstrate the application of each newly learned skill. All students will participate in a solo, (an experience of self-isolation in a natural environment, designed for reflection into yourself). In addition, the mission of Outward Bound is to develop respect for self, care for others, responsibility to the community and sensitivity to the environment. Fee course. 10-day program. 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 Basketball, Philosophy and Methods**

Emphasis on the methods of teaching and coaching basketball. Offense and defense, coach-player relationship, team selection, planning of practice sessions, game situations, and the fundamental skills will be areas of concentration. Cr 2.

### **PHE 304 Health and Physical Education for Elementary Teachers**

A basic course for prospective teachers to develop knowledge and skills to acquaint them with essentials for sound program planning in the various areas of health and physical education. Topics include teaching methods and materials, curriculum, class organization, and lesson planning and evaluation in health and physical education. Observation and practical experience with children will be included. Cr 3.

### **PHE 305 Practicum in Health and Physical Education**

A field-based methodology course conducted in an elementary school. Topics include teaching methods and materials, curriculum, class organization, and lesson planning and evaluation in health and physical education. Observation, peer teaching, and practical experience with children will be included. Cr 2.

### **PHE 310 Experiential Learning in Outdoor Education Ropes/Initiative Course Construction and Use**

Participants can expect to gain first-hand knowledge and experience through actual participation in all phases of initiative course construction and operation. Of primary importance will be the understanding one receives from the experience for constructing a similar course in his/her own educational program.

### **Mountaineering**

Designed to gain knowledge in technical mountaineering and to improve capabilities in technical rock climbing.

### **Orienteering**

Designed to gain knowledge in expedition planning and route finding. Cr 3.

### **PHE 311 Coaching Soccer, Philosophy and Methods**

Emphasis on the methods of teaching and coaching soccer. Offense and defense, player-coach relationship, team selections, planning of practice sessions, and game situations will be areas of concentration. Cr 2.

### **PHE 312 Coaching Football, Philosophy and Methods**

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. Cr 2.

### **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 Field Hockey, Philosophy and Methods**

Analysis of the techniques and methods of coaching field hockey with emphasis on stick work, team strategy, and practice organization. Cr 2.

### **PHE 316 Coaching Volleyball, Philosophy and Methods**

Fundamentals of individual skills, team strategy, practice organization, and team play are emphasized. Cr 2.

### **PHE 318 Coaching Gymnastics, Philosophy and Methods**

Analysis of skills fundamental to competitive gymnastics with emphasis on techniques of coaching floor exercise, uneven parallel bars, vaulting, and balance beam. Judging skills are also developed. Cr 2.

### **PHE 325 Workshop in Experiential Education—Leadership and Learning Center at Wolfe's Neck Farm**

This course is designed for those who wish to provide service to groups using an adventure based programming model and are looking to enhance their facilitation skills. The workshop covers group activities and initiatives, including specific technical skills for ropes course events. Emphasis is on developing the necessary leadership skills to conduct an adventure based program. Fee course. Cr 3.

### **PHE 335 Coaching Baseball and Softball, Philosophy and Methods**

Emphasis on the methods of teaching and coaching baseball and softball. Offense and defense, player-coach relationship, team selection, planning of practice sessions, and game situations will be areas of concentration. Cr 2.



### **PHE 343 Experiential Education—The Outward Bound Experience—Hurricane Island Outward Bound School (Semester Internship Program)**

The course has two major parts: (1) training period and (2) final expedition. During the training period students are instructed and participate in sail theory, navigation, seamanship, first aid, rock climbing, camping skills and environmental awareness. The final expedition is designed to allow the student an opportunity to demonstrate the application of each newly learned skill. All students will participate in a solo, (an experience of self-isolation in a natural environment, designed for reflection into yourself). In addition, the mission of Outward Bound is to develop respect for self, care for others, responsibility to the community and sensitivity to the environment. Fee course. 76-day program. Cr 6-12.

### **PHE 353 Teacher Training—Experiential Education**

This course is designed to blend the process and interdisciplinary approach of experiential education with more traditional forms of learning. This non-traditional methodology will include teaching methods (safety) and materials, (construction) curriculum design, group organization, lesson planning and evaluation. Observation, peer teaching, and practical experience with groups will be included. Fee course. Cr 6.

### **PHE 389 Advanced First Aid and CPR**

This course will cover the topics prescribed by the American Red Cross and the advanced first aid and emergency care course, including respiratory emergencies, artificial respiration, wounds, poisoning, water accidents, drugs, burns, emergency childbirth, emergency rescue and transfer, and CPR. Successful completion of the course requirements will lead for Advanced Red Cross First Aid and CPR certification. Cr 3.

### **PHE 391 Field Experience in Coaching**

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 1-3.

### **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 1-3.

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## **Department of Human Resource Development**

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*Chair:* Willard D. Callender, 400 Bailey Hall, Gorham

*Professors:* Brady, Callender, Southworth, Sutton; *Associate Professors:* Atkinson, Davis, Moore, Steege, Stevens, VanZandt, Vess

The Department offers undergraduate courses that support the programs within the College of Education and may serve as electives for programs outside the College. Please see the graduate catalog for information on graduate programs offered.

### **HRD 331 Group Dynamics**

An experimental study of the nature of group process and one's own functioning in a group. The developing awareness of self in relation to others in a group will be of primary importance. Specific techniques will include reading and participation in a seminar planned to aid in the exploration of self and others. Prerequisites: upperclass or graduate status and permission of the instructor. Cr 3.

### **HRD 333J 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: sophomore level standing. Cr 3.

### **HRD 334 Psychology of the Self**

An exploration into the development of the self, exploring self-knowledge and personal growth. Approaches cover the self alone, the self in society, and the self in the world. Learning techniques will include readings, small group interaction, autobiographical exercises, guided meditation, dream work, and simulated vision quests. Prerequisite: permission of instructor. Cr 3.

### **HRD 335 Educational Psychology**

Basic principles, techniques, and research in educational psychology. A special consideration given to the learning process, perception, motivation, individual differences, and measurement, with refer-

ence to the facilitation of effective teaching and learning. Prerequisite: upperclass status. Cr 3.

### **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.

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# SCHOOL OF BUSINESS, ECONOMICS AND MANAGEMENT

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*Dean:* Robert A. Patton

*Assistant to the Dean:* Sally M. Paterson; *Academic Counselor:* Sharon Bannon; *Staff Associate for Undergraduate Advising:* Cynthia A. Young; *Director, MBA Program:* John J. Voyer; *Director, Center for Business and Economic Research:* Richard J. Clarey; *Research Associates:* Bruce H. Andrews, D. Bradlee Hodson; *Senior and Managing Editor:* Robert C. McMahon; *Assistant Editor:* Stanley M. Max; *Director, Maine Small Business Development Centers Program:* Charles F. Davis; *Director, Institute for Real Estate Research and Education:* Valarie C. Lamont; *Associate Director:* Susan M. Jones

## DEPARTMENT OF ACCOUNTING

*Chair:* D. Bradley Hodson, 118 Bedford St., Portland

*Professors:* Findlay, Jagolinzer, Potts; *Associate Professors:* Hodson, Violette

## DEPARTMENT OF BUSINESS ADMINISTRATION

*Chair:* Raymond P. Neveu, 222 Luther Bonney, Portland

*Professors:* Greene, Houlihan, Neveu, Sturmer; *Associate Professors:* B. Andrews, Boyle, Clarey, Grover, Lombardo, Voyer; *Assistant Professors:* Artz, Gallo, Parsons, T. Sanders

## DEPARTMENT OF ASSOCIATE BUSINESS ADMINISTRATION

*Professors:* Gutmann, McKeil; *Associate Professors:* Aiello, S. Andrews, Gold, Manny, Purdy, J. Sanders; *Assistant Professors:* Kucsma, MacDonald, Westfall

## DEPARTMENT OF ECONOMICS

*Chair:* Joseph E. Medley, 316 Luther Bonney, Portland

*Professor:* Durgin; *Associate Professors:* Bay, Goldstein, McMahon, Medley, Phillips; *Assistant Professor:* Hillard

### *Programs and Requirements*

The School of Business, Economics and Management offers a number of different programs to meet student needs. The School offers a program in business administration leading to an associate of science in business administration degree. Undergraduate programs leading to the degree of bachelor of science in business administration or economics are available in three areas of study: accounting, business administration, and economics. The School also offers a bachelor of arts in economics. In addition, the School provides a graduate program leading to the degree of master of business administration (see graduate catalog for information).

### *Associate of Science in Business Administration*

The associate program in business administration is designed to prepare students who wish to complete their education in two years for employment in junior management positions in several different careers; and to provide a sound foundation for those students who perform well and who wish to transfer to a baccalaureate program in business administration at this University or other institutions.

Associate degree graduates are prepared for employment at the junior management level in many fields of business. Some fields of business that graduates have entered are accounting, bookkeeping, business computers/data processing, sales, retailing, banking, finance, real estate, hospitality services, and management trainee programs.

While the program emphasizes business, it contains courses in liberal arts including English, fine arts, social science, humanities, and mathematics. All concentrations within the associate program transfer into the SBEM baccalaureate program. Also available is a pre-baccalaureate concentration for those students planning to enter a baccalaureate program in business administration immediately after completion of the associate degree program. This concentration requires more mathematics and liberal arts courses than the career concentrations.

The hotel, motel, and restaurant management option is a cooperative, two-year program developed jointly by Southern Maine Technical College and the A.B.A. program. The fourth semester is offered on the SMTC campus in their Culinary School. Students are enrolled at the University but attend classes at SMTC and must provide their own transportation.

### *Admission Requirements*

Any high school student may seek admission to the associate degree program. A college preparatory background, while desirable, is not necessary. Applicants should complete the University of Southern Maine

application and specify the associate in business administration program. Candidates also must complete the Scholastic Aptitude Test.

### *Transfer Policy*

All of the concentrations within the associate program are transferable to the baccalaureate program providing a grade of C- or better is obtained. Grades earned in the associate program for courses transferred to the baccalaureate program are not computed in the cumulative GPA average for graduation purposes.

To be admitted from the associate degree program to the baccalaureate status within SBEM, an individual must have completed at least 15 semester credit hours with an accumulative grade point average of at least 2.40 in all associate business (ABU) courses and in all associate level courses and at least a 2.00 in all baccalaureate level courses.

Associate business courses (ABU) must be completed with a minimum grade of C- to be considered the equivalent to:

ABU 111 and 112	=	ACC 201
ABU 280	=	BUS 280
ABU 101	=	ECO 201J
ABU 102	=	ECO 202J

For any baccalaureate courses which have been completed, an accumulated grade point average of at least 2.00 must be earned.

ABU 220 Introduction to Business Finance; ABU 240 Principles of Management; and ABU 260 Marketing must be validated. Other associate level courses not mentioned above do not have baccalaureate equivalency and therefore transfer as general electives.

From the time of admission to baccalaureate status within SBEM, an individual must fulfill the remaining criteria for admission to a major in the same manner as any other baccalaureate student.

### *Other Policies*

Students who have not been admitted to an associate degree program within the School will be allowed to enroll in associate business courses on a space-available basis according to the following criteria:

1. They have declared a major which requires the course in its curriculum.
2. They have been admitted as baccalaureate degree students in the School of Business, Economics and Management. (SBEM baccalaureate students will *not* receive credit for these courses towards their major requirements unless prior approval has been received from the Dean.)
3. They are admitted to the University as degree candidates.
4. They are non-degree students.

### *Associate of Science in Business Administration*

The minimum number of credits required for the degree is 60 (including 15 credits of ABU courses completed at the University of Southern Maine).

#### Basic Requirements (18 credits)

ENG 100C	College Writing (3)
ABU 119	Business Communication (3)

Two courses selected from the following with approval of an advisor: MAT 010, MAT 011B, MAT 100D, MAT 110D, MAT 211.

From courses approved for Core curriculum (6)

1. One Humanities from a) Literature or b) Other Times/Other Cultures

**Or:**

One Fine Arts from a) Performance-Centered or b) History-Centered

2. Social Science

Required Courses in Business for all concentrations, except pre-baccalaureate concentration (27 credits)

ABU 101	Principles of Economics I
ABU 102	Principles of Economics II
ABU 111	Principles of Accounting I
ABU 112	Principles of Accounting II
ABU 190	Introduction to Computers in Business
ABU 220	Introduction to Business Finance
ABU 240	Principles of Management
ABU 260	Marketing
ABU 280	Legal Environment of Business

**Associate Business Administration Program Concentration (15 credits)**

***Accounting Concentration***

ABU	211	Tax Accounting for the Small Business
ABU	212	Fundamentals of Managerial Accounting
ABU	213	Accounting with Computers
ABU		Program Elective

General Elective (3)

***Computer Concentration***

ABU	191	Introduction to Structured Programming
ABU	294	Introduction to Microcomputer Data Bases

Select three computer electives from the following list, one of which must be ABU 297 or ABU 285 (in computers):

EET	071	Microcomputer Architecture and Applications
ABU	213	Accounting with Computers
ABU	291	COBOL Applications and Documentation
ABU	292	Operating Systems and Networks
ABU	295	Data Design and Handling
ABU	296	Business Information Systems
ABU	297	Advanced Database Systems
ABU	285	ABA Work Internship (in computers)

***Management Concentration***

ABU	243	Small Business Management
ABU	253	Human Relations in Business
ABU		Program Electives (6)

General Elective (3)

***Marketing Concentration***

ABU	262	Introduction to Market Research
ABU	264	Principles of Retailing or ABU 267 Sales Management
ABU	268	Advertising
ABU	285	Business Internship or ABU 271 Independent Study or ABU 243 Small Business Management
ABU		Program Elective (3)

***Hotel, Motel and Restaurant Concentration (spring semester at SMTC)***

HMR	101	Food Fundamentals
HMR	104	Hotel Law
HMR	200	Food and Beverage Management
HMR	201	Quantity Food Fundamentals
HMR	202	Front Office Management

***Real Estate Concentration***

ABU	221	Principles of Real Estate
ABU	222	Real Estate Law
ABU	223	Real Estate Methods
ABU	225	Brokerage Practicum or ABU Program Elective

***ABU Program Electives***

To fulfill the ABU electives required in the above concentrations, students may select from the following courses:

Any ABU course (check prerequisites)

ACC	202	Principles of Management Accounting
ACC	301	Intermediate Accounting I
BUS	190	Personal Finance
MAT	109D	Linear Systems
MAT	110D	Business Calculus
MAT	211	Probability
MAT	212	Statistics

***Pre-Baccalaureate Business Concentration***

This concentration is designed for those associate degree students who wish maximum transfer flexibility into a baccalaureate business degree program. Basic requirements (18 credits) are listed under Associate of Science in Business Administration.

Required Courses in Business (18 credits)

ABU	101	Principles of Economics I
ABU	102	Principles of Economics II
ABU	111	Principles of Accounting I
ABU	112	Principles of Accounting II
ABU	190	Introduction to Computers in Business
ABU	280	Legal Environment of Business
ABU		Program Electives (6)

Select two from the following: ABU 100, ABU 211, ABU 212, ABU 220, ABU 221, ABU 222, ABU 226, ABU 240, ABU 260, ABU 271, ABU 285, ABU 291, ABU 292, ABU 294, ABU 295, ABU 296, ABU 297, ABU 299, ACC 202, BUS 190

#### Mathematics (6)

Select two courses from the following sequence depending upon mathematics courses taken to satisfy Basic Requirements above: MAT 100D, MAT 110D, MAT 211, MAT 212 (Students who complete MAT 110D, MAT 211, and MAT 212 in their first nine hours of mathematics should select a course to fulfill the Core curriculum requirement in Reasoning.)

From courses approved for Core curriculum (12 credits)

Students should take no more than one course from any four of the five designated areas.

1. Natural Science with Lab
2. Social Science
3. Humanities from either a) Literature or b) Other Times/Other Cultures
4. Fine Arts from either a) History-Centered or b) Performance-Centered
5. Interdisciplinary COR designated course

### *Baccalaureate Programs in Business Administration, Accounting, and Economics*

The primary objective of the undergraduate baccalaureate program in business administration is to develop the student's abilities to assume the responsibilities of management. The program aims at developing skills and an attitude of mind that will enable the student to cope successfully with the changing problems of management in the years ahead.

The program is implemented in three phases. First, the student acquires broad training in the arts and sciences for the necessary foundation upon which his or her future education will build. Second, the student pursues a program of study designed to provide an understanding of the major functional areas common to most business operations and knowledge of certain fields which are particularly relevant to the study of management. Courses in this phase may not be taken until the student achieves sophomore standing (23 credits or more). Third, the student undertakes to acquire a deeper knowledge of the selected major field, either accounting or business administration. This is accomplished by taking 18-21 credit hours beyond the common requirements in business and economics.

The undergraduate program in economics provides a broad preparation for a variety of careers as well as for graduate study in economics, business administration, or law. Economics is a social science and as such must be studied in the perspective of a broad training in the liberal arts and sciences. Within the economics program, courses are available in such fields as: economic analysis, quantitative methods, international economics, and the economics of monetary and fiscal policy.

### *Internship Program*

The School of Business, Economics and Management and the Departments of Accounting and Business Administration, with the assistance of Advising and Career Services, offer an internship program. Students with junior or senior standing (or special status) may earn from one to three academic credits for any fall, spring, or summer semester (but not to exceed six total credits). A grade point average (GPA) of 2.5 or better is required for participation in the internship program. Students with a GPA between 2.0-2.5 may petition the Department of Accounting or Business Administration for a waiver of the 2.5 requirement. The accounting internship will be applied to general elective credits only. The first 3 credits in a business internship may be used to fill a 300-level business elective. The second 3 credits in a business internship will count only as general electives. The student, with the assistance of the Department of Accounting and/or the Office of Advising and Career Services, secures a paid work experience of at least 14 weeks of full-time employment (30 hours or greater per week) that utilizes the skills being learned in the academic program. Each internship position must be a new experience under supervision approved by the internship coordinator. (No internship positions will be approved for current or past work experience.) Because this is an academic program, meetings amongst internship coordinator, job supervisor, and student will be held periodically to ensure that a new learning experience is obtained. The student will be responsible for a term paper. The course is taken on a pass/fail basis only (refer to ACC or BUS 395, 396). For further information, consult with an SBEM academic counselor.

### *Double Majors*

Students may elect to complete the requirements for a double major in accounting and economics or in business administration and economics. Students may not seek a double major in accounting and business administration.

### *Admission Requirements for Majors*

Students admitted to the University will enter a baccalaureate program at the School of Business, Economics and Management as pre-accounting, pre-business, or pre-economics. To attain full standing in a major a student must have completed at least 53 semester hours with a minimum grade point average of 2.0, and have completed one of the following subsets of courses, depending upon the designated major, with a minimum

accumulative grade point average of 2.00. Accounting majors must earn a grade of C– or better in each of the courses listed below (for accounting majors) in addition to the overall accumulative grade point average of 2.00.

*Accounting Major:* ENG 100C, ACC 201, ACC 202, BUS 280, ECO 201J, ECO 202J, MAT 110D, MAT 211, MAT 212

*Business Administration Major:* ENG 100C, ACC 201, ACC 202, BUS 280, ECO 201J, ECO 202J, MAT 110D, MAT 211, MAT 212

*B.S. in Economics Major:* ACC 201, ECO 201J, ECO 202J

*B.A. in Economics Major:* ECO 201J and ECO 202J

An application for full standing in a baccalaureate or major in the School of Business, Economics and Management should be completed and returned to the dean's office.

Although the application will not be approved until completion of at least 53 semester hours, the required set of courses and achievement of required grade point averages, students may apply and approval will be made contingent upon completion of the semester's work in which they will have earned 53 or more credits. If admissions requirements are not met, their admission will be revoked and any enrollments in 300-level or above courses in the School of Business, Economics and Management will be cancelled.

To enroll in a 300- or 400-level ACC, BUS, or ECO course, a SBEM degree candidate must have attained junior standing (53 credits) and have completed the required subset of courses for the major.

### *Other Policies*

Students who are not candidates for baccalaureate majors within the School may be allowed to enroll in 300-level or above courses on a space-available basis according to the following priorities:

1. They have declared a major which requires the course in its curriculum.
2. They have been admitted to the minor in business administration or the minor in economics (applies to economics courses only).
3. They are admitted to the University as degree candidates.
4. They are non-degree students.

### *Validation of Upper-Division SBEM Course Requirements Taken as a Lower Division Student*

Courses in the School of Business, Economics, and Management which are numbered 300 or higher shall be taken only by juniors and seniors. In order for a student to receive credit toward an SBEM degree for a 300-level or 400-level SBEM course taken while a person is a freshman, sophomore, or associate degree student, it must be validated by a method which conforms to the policies established by the American Assembly of Collegiate Schools of Business (AACSB). The validation procedures listed below are applicable to all students who complete upper-division SBEM courses or their equivalents while they are freshmen, sophomores, or associate degree students at either USM, other University of Maine System institutions, or other community/junior colleges and baccalaureate degree granting institutions from which transfer credit may be requested. The School of Business, Economics, and Management normally accepts transfer credit from institutions which have regional accreditation (e.g., New England Association, North Central, WICHE, etc).

1. BUS 320 Business Finance may only be validated by passing the Departmental competency exam developed at USM.
2. BUS 327 Investment Management may not be validated at this time, but a method for validation is being studied.
3. BUS 340 Management may be validated by either (1) obtaining a passing score on the College Level Equivalency Program (CLEP) subject exam Introduction to Management designed by the Educational Testing Service, or (2) earning a grade of C=2.00 (A=4.00 system) or higher in BUS 452 Organizational Behavior.
4. BUS 360 Marketing may be validated by either (1) obtaining a passing score on the CLEP subject exam Introductory Marketing or (2) earning a C=2.00 (A=4.00 system) or higher in BUS 367, or (3) by passing the Departmental competency exam developed at USM.
5. BUS 380 Business Law I may be validated by obtaining a passing score on the College Level Equivalency Program (CLEP) subject exam Intro to Business Law designed by the Educational Testing Service.
6. ACC 301 Intermediate Accounting I may be validated by earning a grade of C=2.00 (A=4.00 system) in ACC 302 Intermediate Accounting II.

Other 300-level or 400-level courses in SBEM cannot be validated at this time. Courses similar in title with comparable course descriptions may be accepted as general electives, but will not be applied toward major or minor requirements in SBEM.

If a student does not succeed in validating a 300-level or 400-level SBEM course taken as a freshman, sophomore, or associate degree student, then that course cannot be applied toward fulfilling a SBEM requirement and the appropriate SBEM course must be completed.

The SBEM validation policies stated above pertain to all students admitted to the University of Southern Maine since the fall of 1986. These validation policies are subject to change in ensuing USM catalogs.

## Computer Proficiency

Certain courses in accounting and business administration have as a prerequisite "computer proficiency." This proficiency may be demonstrated by successfully passing the SBEM Proficiency Examination or earning a grade of C- or better in ABU 190 Introduction to Computers in Business.

## Bachelor of Science in Accounting

All students must complete at least 120 credit hours of coursework. To be eligible for the B.S. degree, a student must have attained an accumulative grade point average of 2.00 or higher in coursework taken in baccalaureate programs at the University and in all baccalaureate courses in accounting (ACC), business (BUS), and economics (ECO). Accounting majors also must attain a 2.00 or higher cumulative grade point average in all ACC designated courses (including ACC 201 and ACC 202.) If a student fails to meet the above 2.00 average requirements, the most recent courses with a grade of D may be repeated to increase the average to 2.00, subject to approval by the dean's office. Transfer students majoring in accounting normally will need to complete at least 12 credits of 300-level or 400-level ACC designated courses at USM to obtain a B.S. degree. Students may petition the Department for exceptions. In addition, at least 50% of the basic and major requirements for accounting majors must be taken in SBEM.

### Course Requirements

The minimum number of credits (including the University's Core curriculum) required for the degree: 120 (A minimum of 48 credits must be taken from courses outside the disciplines of accounting, business, or economics. Students are encouraged to take more than the minimum).

#### 1. Core Curriculum Requirements (31 credits)

##### Basic Competence

##### 1. English Composition (3)

Students who fulfill the English Composition Competence of the Core curriculum without earning credits must complete 3 credits of electives from CLA, ENG, FRE, GER, GRE, LAT, or SPA courses.

##### 2. Skills of Analysis/Philosophy (3)

##### 3. Quantitative Decision Making

This requirement may be fulfilled by taking a mathematics course stipulated below under the supplementary requirements.

##### Methods of Inquiry/Ways of Knowing

##### 1. Fine Arts

a. Performance-centered arts (3)

b. History-centered arts (3)

##### 2. Humanities

a. Literature (3)

b. Other Times/Other Cultures (3)

##### 3. Social Science (not to include ECO courses) (6)

##### 4. Natural Science (4)

##### 5. Interdisciplinary COR course (3)

##### Supplementary Requirements Required by SBEM

##### Mathematics (9)

a. MAT 110D Calculus for Business

b. MAT 211 Probability

c. MAT 212 Statistics

##### 2. Basic Requirements for Accounting (33)

ACC 201 Principles of Financial Accounting

BUS 280 Legal Environment of Business

ECO 201J Principles of Macroeconomics

ECO 202J Principles of Microeconomics

\*ECO 300 \*To satisfy this requirement select one of the following: ECO 350 Comparative Economic Systems; ECO 351 Economic Systems of the Former Soviet Union; ECO 360 Economic Development; ECO 361 Applied Economic Development; ECO 370 International Trade.

BUS 320 Business Finance

BUS 340 Management

BUS 360 Marketing

BUS 371 Operations Research/Management Science

BUS 375 Production/Operations Management

BUS 450 Business Management and Policy

##### 3. Major Field (21)

ACC 202 Principles of Management Accounting

ACC 301 Intermediate Accounting I

ACC 302 Intermediate Accounting II

ACC 305 Cost Accounting

ACC 313 Federal Tax Reporting



Select one of the following two courses:

ACC 410 Auditing

ACC 415 Internal Auditing

Select one or more additional courses, totaling 3 credit hours, from among 400-level accounting offerings.

Certain accounting courses are offered only once a year. Students should inquire about these when developing their academic program.

General Electives: (26) No more than 21 credit hours in this category may be taken in accounting, business, or economics courses.

### *Bachelor of Science in Business Administration*

All students must complete at least 120 credit hours of coursework. To be eligible for the B.S. degree, a student must have attained an accumulative grade point average of 2.00 or higher in coursework taken in baccalaureate programs at the University and in all baccalaureate courses in accounting (ACC), business (BUS), and economics (ECO). If a student fails to meet the above 2.00 average requirements, the most recent courses with a grade of D may be repeated to increase the average to 2.00, subject to approval by the dean's office.

#### Course Requirements

The minimum number of credits (including the University's Core curriculum) required for the degree: 120 (A minimum of 48 credits must be taken from courses outside the disciplines of accounting, business or economics. Students are encouraged to take more than the minimum).

#### Core Curriculum Requirements (31 credits)

##### Basic Competence

##### 1. English Composition (3)

Students who fulfill the English Composition Competence of the Core curriculum without earning credits must complete 3 credits of electives from CLA, ENG, FRE, GER, GRE, LAT, or SPA courses.

##### 2. Skills of Analysis/Philosophy (3)

##### 3. Quantitative Decision Making

This requirement may be fulfilled by taking a mathematics course stipulated below under the supplementary requirements.

#### Methods of Inquiry/Ways of Knowing

##### 1. Fine Arts

a. Performance-centered arts (3)

b. History-centered arts (3)

##### 2. Humanities

a. Literature (3)

b. Other Times/Other Cultures (3)

##### 3. Social Science (not to include ECO courses) (6)

##### 4. Natural Science (4)

##### 5. Interdisciplinary COR course (3)

#### Supplementary Requirements Required by SBEM

##### 1. Mathematics (9)

MAT 110D Calculus for Business

MAT 211 Probability

MAT 212 Statistics

##### 2. Social Science (6)

To be selected from ANT, CRM, COM, GEO, HTY, POS, PSY, SOC, and SWO courses.

##### 3. Basic Requirements for Business Administration (33)

ACC 201 Principles of Financial Accounting

BUS 280 Legal Environment of Business

ECO 201J Principles of Macroeconomics

ECO 202J Principles of Microeconomics

ECO elective (300-level or above)

BUS 320 Business Finance

BUS 340 Management

BUS 360 Marketing

BUS 371 Operations Research/Management Science

BUS 375 Production/Operations Management

BUS 450 Business Management and Policy

##### 4. Major Requirements (18)

ACC 202 Principles of Management Accounting

BUS 327 Investment Management

BUS 452 Organizational Behavior

Six credits from ACC, BUS, ECO electives (300-level or above)

Three credits of these six credits must be taken from the following courses:

ECO	350	Comparative Economic Systems
ECO	351	Economic Systems of the Former Soviet Union
ECO	360	Economic Development
ECO	361	Applied Economic Development
ECO	370	International Trade
BUS	330	International Financial Management
BUS	335	International Business
BUS	361	International Marketing

Three credits from BUS electives (300-level or above)

General Electives: (23)

At least 50% of the basic and major requirements for business administration majors must be taken in SBEM.

### *International Business Concentration*

Business administration students may pursue a concentration in international business in addition to their major. The concentration is designed to acquaint business administration students with international commerce and prepare them for business relationships in a global economy. The international business concentration:

1. Requires language proficiency through the advanced level. The program assumes some language preparation prior to beginning the concentration and starts with intermediate level language classes (except for Russian which starts at the beginning). Students with no prior language instruction can take an intensive beginning language course (if offered) during Summer Session.
2. Requires a semester of study abroad including an internship (preferably in the spring of the junior year).
3. Adopts a cultural focus by encouraging study of literature, geography, history, and political science relevant to the regional area of interest. Advisors will encourage students to orient their electives and Core courses toward these areas.

For additional information contact the SBEM office.

### *Minor in Business Administration*

A self-designed minor in business administration (21 credit hours) is available to any baccalaureate student in the University. The general requirements for admission to the minor in business administration are completion of at least 21 credit hours with a grade point average of 2.00 or higher.

The minor is available for students who have specialized needs and interests based on prior business education, work experience or unique career goals. Students wishing to pursue the minor must prepare a typed statement indicating (a) the courses to be included in the minor (minimum of 21 credit hours earned from successfully completing seven courses selected from the following: ACC 201, ACC 202, BUS 280 or higher BUS courses) and (b) the rationale supporting the overall design of the minor. The proposed minor must be approved first by a member of the business administration faculty teaching in the area of the student's interest and second by the chairperson of the Department of Business Administration. A minimum overall grade point average of 2.00 in minor area courses is required to complete successfully the self-designed minor in business administration.

### *Bachelor of Science in Economics*

Business Orientation

The minimum number of credits (including the University's Core curriculum) required for the degree: 120 (at least 48 credits must be taken from courses outside SBEM).

Core Curriculum Requirements (31 credits)

Basic Competence

1. English Composition (3)

Students who fulfill the English Composition Competence of the Core curriculum without earning credits must complete 3 credits of electives from ENG or PHI electives.

2. Skills of Analysis/Philosophy (3)
3. Quantitative Decision Making

This requirement may be fulfilled by taking a mathematics course stipulated below under the supplementary requirements.

Methods of Inquiry/Ways of Knowing

1. Fine Arts
  - a. Performance-centered arts (3)
  - b. History-centered arts (3)
2. Humanities
  - a. Literature (3)
  - b. Other Times/Other Cultures (3)
3. Social Science (not to include ECO courses) (6)
4. Natural Science (4)
5. Interdisciplinary COR course (3)

#### Supplementary Requirements (12)

MAT	110D	Calculus for Business or MAT 152D/153
MAT	211	Probability
MAT	212	Statistics

An optional, more rigorous mathematics sequence is available to those students who desire it. They may take MAT 152D Calculus A and MAT 153 Calculus B instead of MAT 110D, but these students must still take MAT 211 and MAT 212. Successful completion of these math courses may satisfy Core curriculum requirements.

#### Basic Requirements for Economics (9)

ACC	201	Principles of Financial Accounting
ECO	201J	Principles of Macroeconomics
ECO	202J	Principles of Microeconomics

#### Major in Economics (27)

ECO	301	Intermediate Macroeconomics
ECO	302	Intermediate Microeconomics
ECO electives which may include GEO 303		

General Electives to a total of at least 120 credits.

### *Bachelor of Arts in Economics*

Social Science Orientation

Core curriculum requirements as above.

#### Supplementary requirements (12)

Students in this program are required to take MAT 110D, or MAT 152D/153, MAT 120D, and two from POS 101J, SOC 100J, and ANT 101J. Successful completion of either of the mathematics courses and of the two from POS 101J, SOC 100J, and ANT 101J courses will satisfy parts of the Core curriculum requirement.

#### Basic Requirements for Economics (6)

ECO	201J	Principles of Macroeconomics
ECO	202J	Principles of Microeconomics

#### Major in Economics (27)

ECO	301	Intermediate Macroeconomics
ECO	302	Intermediate Microeconomics
ECO Electives which may include: GEO 303		

General Electives to a total of at least 120.

### *Minor in Economics*

A minor in economics is available to students in any major within the University. To gain admission, students must be in good standing at the University and submit a signed Economics Minor Authorization Form to the Dean of the School of Business, Economics and Management. The 21 credit hours below must be completed with at least a 2.00 accumulative grade point average: ECO 201J; ECO 202J; ECO 301; ECO 302; either MAT 120D, or MAT 212, or MAT 362; and six additional credits of 300-level or above ECO electives.

### *Minor in Mathematics*

In cooperation with the Department of Mathematics, a minor in mathematics is available to all economics majors. The optional mathematics minor is: 21 credit hours (not to include statistics courses), with 12 of the credit hours in MAT 152D, 153, and 252. The remaining 9 credit hours are to be selected from the following: MAT 290, MAT 352, MAT 354, MAT 366, MAT 380, MAT 460; COS 260.

### *Master of Business Administration*

The School offers a master of business administration degree. For those interested in this program a separate brochure is available at the School of Business, Economics, and Management office. Please refer to the Graduate Catalog for further information.

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#### **ABU 100 Introduction to Business**

The purpose of this course is to provide students with a basic understanding of the business environment. A broad spectrum of business related topics will be introduced. Topical coverage will include economics, forms of ownership, marketing management, human resource management, accounting, finance and investments, insurance, and business ethics. Cr 3.

#### **ABU 101 Principles of Economics I**

A theoretical analysis of the basic characteristics,

institution, and operational activities of a modern capitalistic economy which is involved in the transformation of scarce economic resources into the goods and services demanded by consumers. (Cannot be applied toward Core curriculum requirement in Social Science.) Cr 3.

#### **ABU 102 Principles of Economics II**

A theoretical analysis of the firm, and its role in the transformation of scarce economic resources into the goods and services demanded by consumers. Indus-

try competition and monopoly factors are the focus of microeconomics. (Cannot be applied toward Core curriculum requirement in Social Science.) Cr 3.

### **ABU 111 Principles of Financial Accounting I**

An introduction to the accounting cycle through financial statements. A practical emphasis on accounting methodology with coverage of cash, accounts receivable, and inventory. Cr 3.

### **ABU 112 Principles of Financial Accounting II**

A study of the procedures of accounting, in accordance with Generally Accepted Accounting Principles (GAAP), for property plant and equipment, long-term investments, and bonds. In addition, the following entities of proprietorships, partnerships and corporations are covered from a practical approach. Analysis of financial statements concludes this course. Prerequisite: ABU 111. Cr 3.

### **ABU 119 Business Communication**

This course introduces students to business communication strategies and provides practice in the application of those strategies using the case method. Students compose business letters, short and long reports, and employment writing. (Formerly ENG 019) Cr 3.

### **ABU 190 Introduction to Computers in Business**

Introduces computer technology through emphasis on mastery of business applications software using IBM compatible computers. Primary focus on spreadsheet design, with graphics and problem-solving techniques. Also covers word processing, MS-DOS, computer hardware, and integration of applications. Possible database exposure. Classroom time predominantly lecture/demonstration. Extensive hands-on computing required outside class. Prerequisite: MAT 010. Cr 3.

### **ABU 191 Introduction to Structured Programming**

This course is an introduction to modern structured programming on a microcomputer using a state-of-the-art compiler language. It covers all standard control and logic structures, arrays, functions, subroutines, and data files. Major emphasis is given to an ongoing consideration of problem-solving techniques as they apply to simple and complex programming situations. Prerequisite: ABU 190 or permission of the instructor. Cr 3.

### **ABU 211 Tax Accounting for the Small Business**

Students will be introduced to federal taxation with a primary emphasis for the self-employed individual. Areas covered include business profit (loss), depreciation, capital gains and losses, disposition of business property, estimated taxes, self-employment tax, and overall taxation for individuals. Payroll reporting requirements will also be included in this course. Prerequisites: ABU 111 and 112. Cr 3.

### **ABU 212 Fundamentals of Managerial Accounting**

The purpose is to introduce students to areas of managerial accounting. Topics covered include cost-volume profit analysis, job order cost, standard cost,

capital budgeting, cash flow, economic order quantities, and financial reporting for manufacturing concerns. Prerequisite: ABU 112. Cr 3.

### **ABU 213 Accounting with Computers**

This is a practical introduction to accounting applications as accomplished with a computer. General ledger, payroll, inventory, accounts receivable and payable are explored using a popular commercial accounting software package. The topics of system selection factors, acquisition, system planning, implementation planning, data entry, report generation, and analysis are also included. Prerequisites: ABU 112 and ABU 190 or equivalent. Cr 3.

### **ABU 220 Introduction to Business Finance**

A study of the promotion, organization, and financing of the single proprietorship, partnership, and corporation. Such topics as fund flows, ratio analysis, breakeven analysis and leverage, time value of money concepts, cost of capital and capital budgeting are examined. Prerequisites: ABU 101, ABU 102, ABU 111, ABU 112, and MAT 011. Cr 3.

### **ABU 221 Principles of Real Estate**

An overview of the fundamentals of real estate that includes rights and interest in land, forms of ownership, contracts, mortgages, ethics, home construction components, elements of listing and selling, as well as the comparative market analysis. This course will also include the state and federal rules and regulations that apply to license law, law of agency and the transfer of real property. Cr 4.

### **ABU 222 Real Estate Law**

A study of real estate law in general and Maine law in particular. Topics include land descriptions, landlord tenant law, land use regulation, zoning, transfers by deed and at death, financial interests and contracts. The course also covers legal matters relating to brokerage including agency law and broker licensing. Cr 4.

### **ABU 223 Real Estate Methods**

A study and application of the practices involved in the real estate profession. Topics include appraisal, construction, negotiations, ethics, financing, and business planning. The course will examine and identify the requirements, forms and individuals found in the selling process. Prerequisite: ABU 221 or permission of instructor. Cr 4.

### **ABU 225 Brokerage Practicum**

This course emphasizes those principles specifically related to real estate brokerage/management. Topics include trust accounts, application of contract law, Maine Real Estate Commission Rules and Regulations, supervision and training of associates. Prerequisites: ABU 221, 222, and 223 or permission of instructor. Cr 3.

### **ABU 226 Real Estate Finance**

Methods of financing various types of real estate including sources of funds, analysis of lenders, risks, types of loans, government influences and partici-

pation, financing instruments, loan processing, defaults and foreclosures. Offered only in the Spring semester in the evening. Cr 3.

#### **ABU 227 Introduction to Stocks and Bonds**

Provides the planning and management of investment programs for all types of investors. Evaluates the various media of investments in terms of their risks and profits. The functions of the stock market and its behavior are examined. Prerequisites: ABU 101, ABU 102, ABU 111, ABU 112, MAT 011. Cr 3.

#### **ABU 240 Management**

A comprehensive study of the fundamentals of management with emphasis on the planning, organizing, leading, and controlling functions. Topics include managerial ethics and social responsibility; problem solving and decision making, organizational strategy; systems and contingency theories; organizational behavior; motivation; information systems; and international management. Prerequisites: ABU 101 and ABU 102. Cr 3.

#### **ABU 243 Small Business Management**

A study of the aspects of management that relate most specifically to the management of small business. The course covers areas of business planning, development, and operation which the prospective owner/manager must consider seriously early in his/her thinking. During the course each student will develop a comprehensive small business plan. Prerequisites: ABU 102, ABU 111, ABU 112, ABU 260. Cr 3.

#### **ABU 253 Human Relations in Business**

Introduction to the behavioral sciences, emphasizing typical behavioral problems faced in business by employees and management. Lectures, case analysis, and outside readings are supplemented by involving the student in role playing and analyzing collected data. Prerequisite: ABU 240. Cr 3.

#### **ABU 260 Marketing**

A study of the marketing organization with a focus on product policies, distribution policies, promotional and pricing policies. Market research is implemented by getting students involved in casework, controversial issues, and local business community projects. Prerequisite: ABU 102. Cr 3.

#### **ABU 262 Introduction to Market Research**

Secondary sources of data, sampling, analysis, and applications of marketing research. Survey design and data collection are discussed. Not a statistical or mathematical orientation. Prerequisite: ABU 260. Cr 3.

#### **ABU 264 Retailing**

Study of the retail distribution structure and of the problems involved in successful store operation under current conditions. Prerequisite: ABU 260. Cr 3.

#### **ABU 265 Merchandising and Sales Promotion**

Theories and principles of product planning and promotional selling of various product lines in retail stores. Prerequisite: ABU 264. Cr 3.

#### **ABU 266 Salesmanship**

A study of the basic theories, skills, and techniques required for effective selling. Cr 3.

#### **ABU 267 Sales Management**

Analysis of the problems facing marketing management in formulating sales policy and in managing the sales organization. Prerequisite: ABU 260. Cr 3.

#### **ABU 268 Principles of Advertising**

The advertising field and career opportunities are surveyed. Significance to business and industry; study of various media in relation to costs and results. Cr 3.

#### **ABU 271 Independent Study**

Selected business topics relating to the student's degree program may be studied and researched on an independent basis. Prerequisites: GPA 2.5, sophomore standing and permission of the instructor and chair of the department. Cr Variable.

#### **ABU 280 Legal Environment of Business**

This course introduces students to the legal system, consumer law, agency law, administrative law, antitrust law, labor law, equal employment law, environmental law, and other topics. It stresses the social responsibility of business and the legal and ethical framework in which businesses must function. Cr 3.

#### **ABU 285 ABA Work Internship**

This course provides students with an opportunity to apply their academic training to experiences in the workplace. Students apply their coursework and library research to their jobs. Interns are contacted the first week of class for orientation. Prerequisite: sophomore standing. Cr 3.

#### **ABU 291 COBOL I: Applications and Documentation**

An introduction to programming in the COBOL language, it includes practice in the structure, rules, and vocabulary of COBOL using exercises in structured problem analysis, program specification techniques, and coding. Programs will focus on simple business problems and generally accepted business procedures. Prerequisite: A grade of B (3.00) or better in ABU 191 or permission of the instructor. Cr 3.

#### **ABU 292 Operating Systems and Networks**

A combination of theory and hands-on use of modern computer operating systems and networks. Included are: examination of various microcomputer and mainframe operating systems; development of batch operating system procedures and utilities; hard disk management; computer networks; and electronic mail. Prerequisite: ABU 191 or permission of the instructor. Cr 3.

#### **ABU 294 Introduction to Databases**

This course is an introduction to modern relational database and fourth generation languages on a microcomputer. It includes single and multiple file databases, structured and non-procedural queries and reports, relating of multiple files, and the develop-

ment of multi-step procedures. Prerequisite: ABU 190 or permission of the instructor. Cr 3.

### **ABU 295 Data Design and Handling**

A course in the design, use and management of advanced data file structures and elementary databases. Content includes data storage, file and database concepts, the actual development and use of direct access methods such as hashing and keys, and the development of primitive databases using both pointer and inversion organization. Prerequisite: A grade of B or better in ABU 191 and ABU 294. Cr 3.

### **ABU 296 Business Information Systems**

The purpose of this course is to develop an understanding of the interrelationships and requirements for an integrated business data processing system in order to provide accurate and timely management information. It examines the most common business applications. Prerequisites: ABU 240 and ABU 294. Cr 3.

### **ABU 297 Advanced Database Systems**

This course explores the design, use, and management of modern database systems. Emphasizes theory and application of relational database design, along with use of 4th generation non-procedural query languages. Contrasts production databases with 4th generation tools. Applies these tools to demonstrate MIS and DSS concepts. Prerequisites: ABU 191 and ABU 294. Cr 3.

### **ABU 299 Special Topics**

This course will be offered on an irregular basis to present special topics relevant for the ABA major. Cr 1-3.

### *Hotel, Motel and Restaurant Concentration Courses Offered at SMTC*

#### **HMR 101 Food Fundamentals**

Food Fundamentals is the first of two sequential cooking labs. It is designed to provide management students with knowledge and skill in fundamental commercial food production. At the completion of this course students will be able to demonstrate skills in the following area. Cr 3.

#### **HMR 104 Hotel/Motel Law**

Hotel/Motel Law takes an in-depth look at a practical working knowledge of law for people in the hospitality field. This course leads to certification by the Education Institute of the American Hotel/Motel AFC. Topics covered are: hotel's right to refuse guest and evict guest, tenant, restaurant patron, or others, duty to protect guests, liability regarding property loss, fire safety laws, the hotel and its employees, general liability for unwholesome food, common law liability for serving alcoholic beverages to intoxicated persons, taxes, franchises, convention and group contacts. Cr 3.

#### **HMR 200 Food and Beverage Management**

This course examines in depth the entire food and beverage operation from purchasing, receiving, and storage to preparation and service. A detailed study

of the primary functions of a food and beverage manager are a critical part of this course. This study will include purchasing of food and beverage, control procedures, operational analysis, bar controls/service and other significant areas. Cr 3.

#### **HMR 201 Quantity Food Fundamentals**

Quantity food preparation is a continuation of food production skills presented in HMR 101 Food Fundamentals. It is designed to provide further knowledge and skill development in culinary procedures. At the conclusion of this course the students will prepare and execute a buffet for friends, faculty, and advisory committee members. Cr 3.

#### **HMR 202 Front Office Procedures**

A systematic study of the operation of the front and night audit. Emphasizes the crucial human and public relations responsibilities of the front office. This course covers the services, accounting controls, and salesmanship involved in the operation of an efficient front desk. Cr 3.

### *Baccalaureate Program*

Certain accounting courses are offered only once a year. Students should inquire about these when developing their academic program.

#### **ACC 201 Principles of Financial Accounting**

An introduction to accounting principles and concepts. Emphasis is placed on understanding financial statements and the accounting for assets, liabilities, equities, revenue, and expenses. Prerequisite: sophomore standing. Cr 3.

#### **ACC 202 Principles of Management Accounting**

This course focuses on uses of accounting information to assist in managerial decision making. Emphasis is placed on fundamentals of cost accounting, inventory controls, cost-volume-profit analysis, capital and other budgeting, statement of cash flows, income tax considerations, and quantitative techniques. Prerequisites: computer proficiency or ABU 190 and ACC 201 and sophomore standing. Cr 3.

#### **ACC 301 Intermediate Accounting I**

A study of accounting theory and practice applicable to the recording and reporting of assets. Includes study of the underlying conceptual framework. Prerequisite: ACC 202. Cr 3.

#### **ACC 302 Intermediate Accounting II**

A study of accounting theory and practice applicable to the recording and reporting of liabilities and owners' equity. Includes selected special problem areas related to financial reporting. Prerequisite: ACC 301. Cr 3.

#### **ACC 305 Cost Accounting**

Concepts and analytical procedures necessary to the generation of accounting data for management planning and control and product costing. Emphasis is on job costing, process costing, standard costs and variance analysis, and quantitative decision-making. Prerequisite: ACC 202. Cr 3.

### **ACC 313 Federal Tax Reporting**

An overview of federal income tax laws as they affect individuals. Minor emphasis on partnerships, corporations, and related topics. Prerequisites: ACC 201 and junior standing. Cr 3.

### **ACC 395 Internship I**

This is the first internship course (junior or senior standing; special students with permission). See description of internship program in catalog text. Cr 1-3.

### **ACC 396 Internship II**

This is the second internship course. Prerequisite: ACC 395. Cr 1-3.

### **ACC 410 Auditing**

A study of auditing philosophy and theory relative to the examination of financial statements and other data. Coverage includes internal control, auditing standards and procedures, and the legal and ethical responsibilities of the independent auditor. Prerequisites: ACC 302 and junior standing. Cr 3.

### **ACC 415 Internal Auditing**

A study of the nature of internal auditing, professional standards, organizational controls, operational auditing, and internal audit reporting. Prerequisite: ACC 302. Cr 3.

### **ACC 420 Senior Seminar in Accounting**

A study of one or more current issues in accounting. Cr 1-3.

### **ACC 431 Mergers and Consolidations**

A study of accounting theory and practice applicable to mergers, consolidations, combinations, and related topics. Prerequisite: ACC 302. Cr 1.5.

### **ACC 432 Not-For-Profit Accounting**

A study of accounting theory and practice applicable to organizations which operate using fund accounting. Prerequisite: ACC 302. Cr 1.5.

### **ACC 433 Partnership and International Accounting**

A study of accounting theory and practice applicable to partnership entities, and international accounting issues. Prerequisite: ACC 302. Cr 1.5.

### **ACC 434 Advanced Financial Reporting**

A detailed study of accounting theory and practice applicable to selected special problem areas in financial reporting. Prerequisite: ACC 302. Cr 1.5.

### **ACC 460 Accounting Information Systems**

Technical foundations and methodology used in systems analysis and design, with emphasis on applications to the accounting cycle in organizations. Prerequisites: Computer proficiency or ABU 190 and ACC 301. Cr 3.

### **ACC 490 Independent Readings and Research in Accounting**

Selected topics in the various areas of accounting, auditing, and income taxes may be studied and

researched on an independent basis. Prerequisites: Permission of instructor and Department chair and senior standing. Cr 1-3.

### **BUS 190 Personal Finance**

In dealing with the problems of managing personal finances, primary emphasis is placed on methods of measuring and evaluating expenditures to assure optimal benefit from the income. It includes an evaluation of typical occupations and incomes; of life insurance with the various types, investments and mutual funds; of the borrowing of money and use of credit; of taxes and estate planning. The course work will be a series of readings with brief case problems in each of the major areas. (When taken by business or accounting majors, this course will give general elective credit.) Cr 3.

### **BUS 280 Legal Environment of Business**

This course introduces students to the legal system, consumer law, agency law, administrative law, antitrust law, labor law, equal employment law, environmental 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 320 Business Finance**

This course introduces the student to the theories and techniques of managing capital sources and uses within the framework of shareholder wealth maximization. Lecture, problems, cases. Prerequisites: Computer proficiency or ABU 190, ECO 201J, ECO 202J, ACC 202, MAT 212 and junior standing. Cr 3.

### **BUS 327 Investment Management**

Provides the planning and management of investment programs for all types of investors. Evaluates the various media of investments in terms of their risks and profits. The functions of the stock market and its behavior are examined. Prerequisites: ACC 201, BUS 320, and junior standing. Cr 3.

### **BUS 328 Commercial Banking**

This course involves both lending and borrowing money on a commercial basis and the management of a bank's assets and liabilities, liquidity position, cost of bank funds, capital acquisitions, and how to measure and manage interest sensitivity and margin. Approximately half of the course concerns determining the bankability of commercial loan applicants. Students learn to establish whether there is an adequate source of repayment and if the balance sheet has sufficient debt capacity or collateral. Prerequisites: ACC 202 and junior standing. Cr 3.

### **BUS 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 financ-

ing, international working capital management, multinational capital budgeting, and international cost of capital. Prerequisites: ACC 201, ECO 201, ECO 202 and junior standing. Cr 3.

### **BUS 335 International Business**

Introductory course on all aspects including finance, marketing, and management. Among the topics included are: fixed and floating exchange rates, gold standards, Eurocurrency market, international taxation, transfer pricing, foreign exchange hedging and forecasting, balance of payments, global marketing brands, theory of multinational corporation, joint ventures/licensing/wholly owned subsidiary, compensating managers abroad, international leasing. Prerequisites: ACC 202, ECO 201J, 202J, and junior standing. Cr 3.

### **BUS 340 Management**

A comprehensive survey of the issues encountered by managers and the practices they employ in planning, organizing, leading, and controlling organizations. Among the topics: management as a discipline, motivation, power, leadership, strategy, decision making, organizational design, and information and control systems. Prerequisite: junior standing. Cr 3.

### **BUS 346 Personnel and Human Resource Management**

Analysis of professional practice issues in personnel and human resource management. Topics include human resource planning, staffing, performance appraisal, compensation and reward system design, training and development, employee rights and safety, labor-management relations, legal aspects of human resource management practice, and the international dimension of human resource management. Prerequisite: BUS 340. Cr 3.

### **BUS 348 Industrial Relations**

A study of industrial relations patterns in the U.S. Major focus is on the relationship between management and labor (organized and unorganized), and the bargaining, administration, and interpretation of contracts, the problem of dispute settlement, and a comparison of methods used in the U.S. and abroad. Attention is also given to industrial relations in unorganized firms and in the Civil Service. Prerequisites: BUS 340 and junior standing. Cr 3.

### **BUS 349 Women in Management**

For both men and women in business, education, and other work settings. It explores the changing business and organizational environment created by the increase of women in professional and managerial positions. The course examines theoretical concepts pertaining to women in management. Both women and men who are or aspire to be managers will benefit from this course. Prerequisites: BUS 340 and junior standing. Cr 3.

### **BUS 350 Career Planning and Development**

An exploration of career options based on an analysis of one's own personal and professional profile: life transitions, skills and abilities, interests, motivations, and behavioral styles. Models, readings, case

studies and experiential exercises will help participants analyze their patterns and preferences, anticipate life/work developmental stages, and design action programs to obtain their immediate and long-range plans. Cr 3.

### **BUS 360 Marketing**

This course is an introduction to the field of marketing and provides the background knowledge for further study in international marketing, advertising, consumer behavior, managerial marketing, and marketing research. Topics in the course include marketing strategy for products and services, market segmentation, product issues, pricing, promotion, distribution, consumer research, and marketing research. Prerequisite: 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 is included. Prerequisites: BUS 360 and junior standing. 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 360 and junior standing. Cr 3.

### **BUS 365 Consumer Behavior**

This course 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. Prerequisite: BUS 360 or permission of the instructor. Cr 3.

### **BUS 367 Managerial Marketing**

Students gain experience making marketing decisions as managers of a computer-simulated firm. The emphasis is on applying a "systems" approach to marketing decision making and on integrating knowledge gained in the other functional business areas into a strategic market planning framework. Prerequisites: BUS 360 and junior standing. Cr 3.

### **BUS 369 Marketing Research**

Consideration of market research as a management planning and evaluative tool. Emphasis on problem formulation, exploratory research, research design, basic observational and sampling requirements, data analysis, interpretation and sampling. Prerequisites: BUS 360 and junior standing. Cr 3.

### **BUS 371 Operations Research/Management Science**

A survey of quantitative methods which are commonly used in sophisticated managerial decision making. Mathematical models are constructed and



applied, with the computer's aid, to a wide range of real world business situations. Topical coverage includes decision analysis, inventory models, network analysis, simulation, queuing models, and non-linear programming. Prerequisites: Computer proficiency or ABU 190, MAT 212 and junior standing. Cr 3.

### **BUS 375 Production/Operations Management**

An introduction to the problems and topics associated with the management of production operations and the delivery of services. The primary emphasis is upon the design of model-based planning and control systems. Specific applications of such systems are used to illustrate general concepts as well as implementation difficulties. Prerequisite: BUS 371.

Cr 3.

### **BUS 380 Business Law I**

This course, an introduction to the study of business law, includes a thorough survey of contracts, agency, negotiable instruments, partnerships, corporations, secured transactions, bankruptcy, and other topics. This course is intended to provide a broad overview of business law and the Uniform Commercial Code. Prerequisite: BUS 280, junior standing, or permission of instructor.

Cr 3.

### **BUS 381 Business Law II**

An opportunity to continue the study of business law and to evaluate thoroughly selected topics such as corporate reorganizations and combinations, antitrust law, sales of goods, securities regulations, property and the legal aspects of business planning. This course is designed for students who want to do in-depth analysis of selected areas in business law. Prerequisites: BUS 280 and junior standing.

Cr 3.

### **BUS 391 Computer-Based Decision Modelling and Simulation**

An in-depth examination of the role of the computer as an aid in managerial decision making. Emphasis is placed upon strengthening the student's ability to build and properly utilize computer-based decision models and simulation for problem solving in the public and private sectors. Prerequisites: Computer proficiency or ABU 190 or COS 160, MAT 211, MAT 212, junior standing and completion of admissions requirements for majors.

Cr 3.

### **BUS 395 Internship I**

This is the first internship course (junior or senior standing; special students with permission). See description of internship program in catalog text.

Cr 3.

### **BUS 396 Internship II**

This is the second internship course. Prerequisite: BUS 395.

Cr 3.

### **BUS 445 Compensation Management**

Analysis of strategies used to design and implement effective compensation systems. Concerns about internal compensation fairness, external competitiveness, determination of pay structures, benefits, government regulation and compensation adminis-

tration are the central features of the course. Prerequisites: BUS 346.

Cr 3.

### **BUS 450 Business Management and Policy**

Administrative practice at the higher levels of business management through case analysis and discussion. The course attempts to coordinate the background of business majors in the formulation and administration of sound business policy. Prerequisites: BUS 320, BUS 340, BUS 360, BUS 371 and senior standing.

Cr 3.

### **BUS 452 Organizational Behavior**

An analysis of the interplay between individual and group behavior, leadership styles and the culture of an organization. The findings of behavior science are applied to such processes as motivation, influence, the structure of work, organizational design, leader-group relations and organizational change. Models, case studies, simulations, and applications. Prerequisites: BUS 340 and junior standing.

Cr 3.

### **BUS 460 Management Information Systems**

The course focuses on the role of management information systems support in business organizations. Specific topics include computer hardware and software, data communications, decision making, systems theory, end user computing, information systems lifecycle, systems analysis and design, database concepts, and decision support systems. Prerequisites: Computer proficiency or ABU 190, BUS 340 and senior standing.

Cr 3.

### **BUS 490 Independent Readings and Research**

Selected topics in the various areas of accounting, finance, management, and marketing may be studied and researched on an independent basis. Prerequisite: junior standing.

Cr 1-6.

### **BUS 499 Special Topics in Business and Management**

Cr var 1-3.

### **EDC 300 Economic Concepts and Research Materials for Educators**

A study of the simplification of economic concepts for presentation at elementary and secondary grade levels; also the study and preparation of various resource materials used in presenting economic concepts at these levels. Prerequisite: permission of the instructor.

Cr 3.

### **ECO 201J Principles of 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 202J Principles of 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 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 201J, ECO 202J, and junior standing. 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 201J, ECO 202J, and junior standing. Cr 3.

### **ECO 305 Mathematical Economics**

This course will cover the development and application of contemporary quantitative methods to the analysis of economic theory. These tools will be developed within the framework of economic models. Prerequisites: ECO 201J, ECO 202J; MAT 109D and 110D or MAT 152D and MAT 153, and junior standing. Cr 3.

### **ECO 306 Econometrics**

Econometrics is a special field of economics in which models are used to test the validity of hypothesized theoretical relationships against actual data. Econometric forecasting and simultaneous equation estimation will be discussed. Prerequisites: ECO 201J, ECO 202J, MAT 212, and junior standing. 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 201J, ECO 202J, and junior standing. Cr 3.

### **ECO 315 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 201J, and junior standing. Cr 3.

### **ECO 320 Labor Economics**

This course emphasizes the application of economic analysis and concepts to a variety of labor problems such as the supply and demand for labor, wage determination, wage differentials and structures, and wages and inflation. In addition, there will be a brief review of the evolution of the American labor movement and public policy toward labor. Prerequisites: ECO 201J, ECO 202J, and junior standing. Cr 3.

### **ECO 322 Economics of Gender and Discrimination**

This course examines the very different postwar economic experiences of women, men and minority groups, for example, their differential access to high-paying jobs and career ladders in labor markets. The class will assess a range of theories designed to explain these differences. In addition, students will consider the effectiveness of a variety of public policies designed to create greater labor market equity. Prerequisites: ECO 201J, ECO 202J, and junior standing. 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 201, ECO 202, and junior standing. Cr 3.

### **ECO 330 Urban Economics**

This course introduces the study of urban economics through a conceptual and historical background for analyzing the urban economy, and outlines basic theoretical models of urban conditions and applications to several most urgent urban problems. Prerequisites: ECO 201J, ECO 202J, and junior standing. Cr 3.

### **ECO 340 History of Economic Thought**

A survey of the development of basic economic principles and theories from pre-industrial times to the present. Major emphasis is on the Classical School (Smith, Ricardo, and Malthus), and its critics, the development of the Austrian School, the synthesis of Neo-Classicism, and the emergence of macroeconomics. Prerequisites: ECO 201J, ECO 202J, and junior standing. Cr 3.

### **ECO 350 Comparative Economic Systems**

The structures and operating principles of the major contemporary economic systems are examined and compared. Prerequisites: ECO 201J, and junior standing. Cr 3.

### **ECO 351 Economic System of the Former Soviet Union**

A study of the development, institutions, and structure of the former U.S.S.R. Prerequisites: ECO 201J, ECO 202J, and junior standing. Cr 3.

### **ECO 360 Economic Development**

The theories and practices of interregional and international economic development. Special attention is given to developmental problems of emerging nations. Prerequisites: ECO 201J, and junior standing. Cr 3.

### **ECO 361 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: ECO 201J and junior standing. Cr 3.

### **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 201J, ECO 202J, and junior standing. 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 201J, ECO 202J, and junior standing. 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 201J, ECO 202J, and junior standing. Cr 3.

### **ECO 385 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: ECO 201J and junior standing. Cr 3.

### **ECO 450 Readings in Economics**

A series of readings and discussions of important books of a socio-economic and politico-economic nature books with which the well-informed economics major should be familiar but which, due to time constraints, have not been integrated into the study hours of economics. Cr 3.

### **ECO 490 Independent Readings and Research in Economics**

Independent study and research of various student-selected areas of economics. Prerequisites: senior standing and a completed independent study form (available from SBEM Dean's office). Cr 1-3.

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## SCHOOL OF APPLIED SCIENCE

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*Dean:* Brian C. Hodgkin, 101 Technology Center, Gorham

*Assistant Dean:* Richard H. Carter, 101 Technology Center, Gorham

The School of Applied Science is an academic unit of the University delivering science, engineering, computer science, and technology programs. The School is organized into four departments: the Department of Computer Science, the Department of Technology, the Department of Engineering, and the Department of Applied Medical Sciences. Through these departments, the School offers bachelor's degrees, including the B.S. in computer science, electrical engineering, industrial technology, vocational technology, technology education, and vocational/occupational education. In addition to the B.S. in electrical engineering, some courses in other engineering disciplines are available. The School also works closely with the University's Department of Continuing Education for Business to provide courses and programs serving the needs of the region. A Technology Center provides for ongoing liaison with industry.

The School offers the M.S. degree in computer science; and through the Center for Engineering Studies, the M.S. degree in electrical engineering is extended from the University of Maine. The M.S. degree in applied immunology is offered in collaboration with the Maine Medical Center and the Foundation for Blood Research. Further information regarding the School's graduate programs may be found in the Graduate Catalog.

### *General Information*

Admission to an undergraduate program in the School of Applied Science is initiated through the University Admissions Office. Candidates for admission must be graduates of an approved secondary school and meet such other admissions requirements as are set out in the Admissions section of this catalog and individual program descriptions.

General academic policies will be found in the Academic Policies section of this catalog. Specific policies and requirements are set forth 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. See the Engineering section of the catalog for Core curriculum requirements for electrical engineering majors.

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## Department of Computer Science

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*Chair of the Department:* Charles Welty, 224 Science Building, Portland

*Professors:* Heath, Welty; *Associate Professors:* Briggs, MacLeod; *Assistant Professors:* Fenner, Vijaykumar;

*Adjunct Faculty:* El-Taha

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.

### *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.

The curriculum prepares students for graduate study or professional careers in the computer field. Course requirements ensure that students receive instruction in both practical and theoretical aspects of computer science.

To fulfill a major requirement, a course 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. Successful completion of the following courses:

COS	160	Structured Problem Solving: Pascal
COS	161	Algorithms in Programming
COS	170	Structured Programming Laboratory
COS	250	Computer Organization
COS	251	Systems Programming
COS	280	Discrete Mathematics
COS	285	Data Structures
COS	360	Programming Languages
COS	480	Theory of Computation
COS	499	Ethical Conduct and Social Responsibility
MAT	152D	Calculus A
MAT	153	Calculus B
MAT	380	Theory of Probability and Statistics (MAT 381 may be substituted for MAT 380)

B. Successful completion of six additional COS courses numbered 300 and above, excluding COS 497. In order to ensure that depth of knowledge is obtained in a broad range of areas in computer science, at least one course must be chosen from each of the following three groups:

Algorithms and Data Structures	Languages and Software Design	Systems and Architecture
COS 374	COS 372	COS 355
COS 385	COS 457	COS 357
COS 452	COS 469	COS 450
COS 472		COS 460

C. Successful completion of one additional mathematics course with second digit 5 or greater, excluding MAT 290 and MAT 390.

D. (1) Completion of a two semester sequence of either

CHY 113K with CHY 114K and CHY 115 with CHY 116

Or

PHY 121K with PHY 122K and PHY 123 with PHY 124.

(2) In addition to the above requirement, completion of two additional science courses selected from the list below:

any of the requirement D (1) courses (with associated laboratory course) not used to satisfy requirement D (1),

PHY 212

CHY 371

CHY 373

BIO 105K with BIO 106K

GEY 111K with GEY 112K

GEY 113

GEY 327

ELE 210

ELE 211

ELE 262.

Subject to Department approval, other science courses with a strong emphasis on quantitative methods may be used to satisfy requirement (2).

E. Successfully complete THE 170F.

*Suggested Schedule*

The following schedule of mathematics and computer science courses is typical for the freshman and sophomore years.

	<i>Fall</i>	<i>Spring</i>
Freshman year	COS 160 MAT 152D	COS 161 MAT 153
Sophomore year	COS 250 COS 280	COS 251 COS 285

*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: COS 160; COS 161; COS 250; COS 280; COS 285, and one additional COS course with first digit 2 or greater.

## **Course Fees**

Course fees to cover the cost of materials and supplies are assessed in some computer science courses.

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### **COS 101D Quantitative Decision Making Using Computers**

The primary objective of this course is to teach students how to use logical reasoning and quantitative methods to solve problems. Students will practice quantitative skills using database and statistical analysis software programs on microcomputers. This class requires no previous computer experience. Prerequisite: two years of high school algebra. Cr 3.

### **COS 140 Programming in FORTRAN**

A study of programming techniques and applications using FORTRAN. Prerequisite: Two years of high school algebra or equivalent. Cr 3.

### **COS 160 Structured Problem Solving: Pascal**

An introduction to the use of digital computers for problem solving, employing the Pascal programming language as a vehicle. Content includes elementary control structures and data representation methods provided by Pascal 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: two years of high school algebra or equivalent. 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. Prerequisite: COS 160. Cr 3.

### **COS 170 Structured Programming Laboratory**

Computational experiments will be designed to teach students how to construct reliable software in the Turbo Pascal Environment. Topics to be covered include: MS-DOS, conditional program flow, iteration, procedures and functions, and symbolic debugging. This course must be taken concurrently with COS 160. Cr 1.

### **COS 230 Programming in COBOL**

A study of the programming language used primarily in business. Prerequisite: COS 140 or COS 160. 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. Normally only offered in the fall semester. Cr 3.

### **COS 251 Systems Programming**

A study of systems programming concepts and software, including the Unix programming environment, C programming language, and Unix operating systems interface. Students develop their abilities in these areas through programming exercises and projects. Prerequisite: COS 250. Cr 3.

### **COS 280 Discrete Mathematics**

Concepts of modern algebra, set theory, Boolean algebra, elements of graph theory, and their application to computer science. Prerequisite: COS 161. 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 250 and COS 280 or permission of instructor. Normally offered in spring semester only. Cr 3.

### **COS 355 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. Prerequisites: COS 280 or MAT 290, and COS 250. Cr 3.

### **COS 357 File Organization**

The topics covered extend those of COS 285 to include external data structures and algorithms that support file and database systems. Study of various external storage media including magnetic tape, disk and bubble memory. Various file organizations such as sequential, direct, and indexed sequential will be studied in detail. Prerequisite: 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 Smalltalk. Prerequisites: COS 250, COS 285. Cr 3.

### **COS 370 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 372 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 251, COS 285. 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, COS 160, and permission of instructor. Cr 3.

### **COS 385 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. Problems of practical importance including minimum spanning tree, single source shortest path, traveling salesperson, graph search, and pattern matching are covered. The concepts of NP-hard and NP-complete are also considered. Substantial programming in a high-level language. Prerequisite: COS 285. 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 251, COS 285. 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. Prerequisites: COS 251, COS 285. 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 concurrency control. The entity-relationship and relational models are emphasized and their use required in a design project. Prerequisite: COS 285. Cr 3.

### **COS 460 Computer Networks**

A description of computer networks organized as a layered architecture based on the OSI Reference Model. Protocols and services of each layer are examined in detail. Specific local area networks, metropolitan area, and wide area networks will be considered. Prerequisites: COS 285, COS 251. Cr 3.

### **COS 469 Introduction to Compiler Construction**

Definition of a language, context-free grammars, rigorous definition of a typical small language, design and implementation of a compiler for programs within this language. Prerequisite: COS 360. 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. Prerequisites: COS 280, COS 285. 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 introduces the concepts of recursive and recursively enumerable sets. Prerequisite: COS 280. 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. This course is only offered on a pass/fail basis and does not fulfill any computer science requirement. Prerequisites: junior or senior standing and permission of the Department chair and instructor. Cr 1-3.

### **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. Cr 1.

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# Department of Engineering

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*Chair of the Department:* James W. Smith, 106 Technology Center, Gorham

*Associate Professors:* Guvench, Hodgkin, Knudsen, Smith; *Assistant Professors:* Ellis, Jankowski, Most

Engineers apply the principles of chemistry, mathematics and physics to design and create instruments, structures, machines, and systems. Virtually every physical part of modern society was designed, developed, and tested by engineers. The computer, an engineering accomplishment itself, is now a valuable engineering tool.

Engineering programs include the bachelor of science degree program in electrical engineering, and the first one to two years of courses for several other engineering specialties.

## **Admission Requirements**

Preparation for an undergraduate engineering program should include high school chemistry, physics, and mathematics including algebra and trigonometry. Courses are available at the University of Southern Maine for those students needing to make up prerequisites.

## **Programs and Requirements**

### ***I. Bachelor of Science in Electrical Engineering***

Electrical engineering is a challenging profession concerned with the design, development, fabrication, and control of electrical and electronic devices and systems. The undergraduate program is built on a foundation of physics, chemistry, and mathematics. It is broad-based but there are opportunities to specialize, particularly in digital systems and solid state device electronics and microelectronics. The goal of the program is that students will be technically competent and will have good communications skills, be able to work as part of a team or independently, function well in a multi-skills setting, and be prepared for a lifetime of learning and professional growth.

Requirements for the bachelor of science degree in electrical engineering at the University of Southern Maine include:

#### **Mathematics**

MAT	152D	Calculus A
MAT	153	Calculus B
MAT	252	Calculus C
MAT	350	Differential Equations

One advanced mathematics course selected from an approved list

#### **Computer Science**

COS	160	Structured Problem Solving: Pascal
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#### **Basic Science**

CHY	113, 114, 115, 116	Principles of Chemistry I and II
PHY	121K, 122K, 123, 124	General Physics I and II

#### **Electrical Engineering**

ELE	100	Introduction to Engineering
ELE	171	Introduction to Microprocessors
ELE	172	Digital Logic
ELE	210, 211	Electric Circuits I and II
ELE	262	Physical Electronics
ELE	300	Seminar
ELE	314	Linear Circuits and Systems
ELE	323	Electromechanical Energy Conversion
ELE	342, 343	Electronics I and II
ELE	351	Electromagnetic Fields
ELE	362	Materials Science
ELE	401, 402,	
	403	Design Project I, II and III
ELE	425	Control Systems

**OR**

ELE	483	Communications Engineering
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#### **Mechanical Engineering**

MEE	230	Thermodynamics
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#### **Technical Electives**

At least 2 electrical engineering elective courses are required. The third required technical elective can



be chosen from physics, chemistry, mathematics, computer science, electrical engineering, and other engineering disciplines as available.

#### Core Curriculum Courses

Category	Description	Course
C	English Composition	ENG 100C College Writing
D	Quantitative Decision Making	MAT 152D Calculus A
E	Skills of Analysis/Philosophy	PHI 100-level – 1 E-designated course
F	Performance-Centered Arts	THE 170F Public Speaking
G	History-Centered Arts	One course
H	Humanities: Literature	One course
I	Humanities: Other Times/Other Cultures	PHI 300-level – one I- designated course or one course from the Arts or Humanities which provides depth*
J	Social Science	ECO 201J, ECO 202J
K	Natural Sciences	PHY 121K, 122K
COR	Interdisciplinary	One course

\*Depth is defined as:

1. A sequence of two courses taken in the same department, or
2. A sequence of two courses in which one is a prerequisite for the other, or
3. A sequence of two courses which are closely related; such as Greek Philosophy and Greek Literature.

Credits to graduate: 133

Grade point average: 2.0 overall and 2.0 in 300-level and higher electrical engineering courses.

#### Minor in Electrical Engineering

A minor in electrical engineering may be obtained by successfully completing the courses listed with an accumulative grade point average of 2.0: ELE 100, ELE 171, ELE 172, ELE 210, ELE 211, ELE 262, ELE 323, ELE 342, ELE 343, ELE 351. Science and mathematics prerequisites for these courses must also be completed successfully.

#### II. Transfer Programs for Several Engineering Disciplines

The transfer engineering program prepares students to complete the degree at the University of Maine or elsewhere. All University of Southern Maine students who have satisfactorily completed their first year or more at the University of Southern Maine are eligible to transfer to the University of Maine for the completion of the program. The following curricula are offered at the University of Maine: agricultural engineering, chemical engineering, civil engineering, computer engineering, electrical engineering, engineering physics, forest engineering, mechanical engineering, pulp and paper technology, and surveying engineering.

#### Course Fees

Course fees to cover the cost of materials and supplies are assessed in many electrical engineering courses.

#### ELE 100 Introduction to Engineering

Provides basic understanding of engineering methods and use of computers as engineering tools. Word processing, engineering calculations, data processing, graphics, computer-aided drafting, principles of design, and report writing. Learning of computer skills associated with each topic. Simple design project and report. Prerequisites: none. Typing skills are useful. Lecture 1½ hrs., Lab. 3½ hrs. Cr 3.

#### ELE 105D Engineering Decisions

An overview for non-engineering majors of the methods used to make decisions in science, engineering, and technology. Concepts of risk, safety, and ethics. Conceptual understanding and ability to solve simple though real problems using Boolean logic, algebra, trigonometry, probability, and statistics. The computer is introduced as a logical and computational tool. Prerequisites: Two years of high school algebra, one of geometry, one physical science. Cr 3.

#### ELE 171 Introduction to Microprocessors

Introduction to microprocessors: architecture, oper-

ating principles, and programming. The microcomputer and its component parts: central processing unit (CPU), memory, input-output. Lecture 3 hrs., Lab. 2 hrs. Cr 4.

#### 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. Cr 4.

#### ELE 210 Electric Circuits I

Basic circuit laws and theorems, natural and forced responses of first order systems, phasor concepts, application of basic circuit theorems to steady-state a-c networks including steady-state power. Characteristics and proper use of basic circuit instruments. Prerequisites: MAT 153, PHY 123. Lecture 3 hrs., Lab./Comp. 2 hrs. Cr 4.

### **ELE 211 Electric Circuits II**

Electric circuit analysis in the frequency domain. Study and application of Laplace transforms, transfer functions, poles and zeros, frequency response, step and impulse response, and Fourier series. Prerequisites: ELE 210. 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 300 Seminar**

Exploration of various professional and technical topics such as ethics and esthetics in engineering, résumé preparation, interview skills, the role of engineering in contemporary civilization, experiment design, engineering economy. Prerequisite: junior standing in engineering. Lecture 1 hr. (Pass/fail grade only) Cr 3.

### **ELE 314 Linear Circuits and Systems**

Analysis of continuous and discrete-time linear systems. Sequences, difference equations, convolution, Z transforms, filters, and fast Fourier transforms. Prerequisites: ELE 211, MAT 350, COS 160 or equivalent. Lecture 3 hrs. Cr 3.

### **ELE 323 Electromechanical Energy Conv.**

Basic concepts of magnetic circuits and transformers. Introduction to conversion between electrical energy 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. Introduction to electronic drive of motors. Prerequisite: ELE 211. 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. Prerequisite: ELE 262, ELE 211. 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 or equivalent, SPICE simulation. 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. Prerequisite: MAT 252, PHY 123. Lecture 3 hrs. Cr 3.

### **ELE 362 Materials Science**

Concepts of relationships between structure, composition and thermal, optical, magnetic, electrical and mechanical properties of metals, ceramics, glasses and polymers. Prerequisites: MAT 153, CHY 115 or permission. Cr 3.

### **ELE 394 Electrical Engineering Practice**

Work experience in electrical 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 faculty. Prerequisite: sophomore standing. Cr 1-3.

### **ELE 401, 402, 403 Design Project I, II, III**

Proposal, implementation, and reporting on a device or system to perform an engineering function. May be done individually or in small groups. Student selects or is assigned an advisor and with that advisor defines the project. Under the supervision of the advisor, the project is researched, designed, developed, and implemented. Oral and written reports are required. This is a three-semester sequence. Prerequisites: permission of department. (Semester 1) Completion of at least two 300-level electrical engineering courses (not counting ELE 300). (Semester 2) Completion of at least five 300- and/or 400-level electrical engineering courses. Cr 1, 4, 2.

### **ELE 425 Control Systems**

Introduction to feedback control systems. Modeling and analysis of control systems using frequency response, root locus, and computer methods. Design and compensation of feedback control systems. Prerequisite: ELE 323 or permission. Lecture 3 hrs., Lab. 2 hrs. Cr 4.

### **ELE 444 Analog Integrated Circuits**

Topics in the internal circuit design and system applications of analog integrated circuits; current sources, differential amplifiers, level shifters, operational amplifiers, regulators, high frequency considerations; digital-to-analog and analog-to-digital converters, phase-locked loops. Prerequisites: ELE 314 and ELE 343. Lecture 3 hrs. Cr 3.

### **ELE 463 Solid State Electronic Devices**

The theory of solid state electronic devices and an introduction to device fabrication technology. Devices studied include Schottky diodes, solar cells, light emitting diodes, bipolar junction transistors (BJTs), metal oxide semiconductor field effect transistors (MOSFETs) and capacitors and junction field effect transistors (JFETs). Prerequisite: ELE 262. Lecture 3 hrs. Cr 3.

### **ELE 464 Microelectronics**

Design principles and fabrication techniques of hybrid and monolithic integrated circuits. Diffusion, epitaxial growth, oxidation and photolithographic

processes. Characteristics and state-of-the-art technology of passive and active IC components and circuit design. Prerequisite: ELE 463. Lecture 3 hrs. Cr 3.

### **ELE 465 Digital Integrated Circuits**

Analysis and design of digital integrated circuits. Principles of silicon I.C. fabrication. Structure, characteristics and models of integrated circuit components. Nonlinear and charge control models for transistors. MOS logic families: PMOS, NMOS, CMOS. Bipolar logic families: DTL, TTL, Schottky TTL, ECL, I<sup>2</sup>L. Layout design and parasitics. Performance limitations and comparison of logic families. Interfacing. Regenerative circuits. Memory circuits. Prerequisite: ELE 262, ELE 343. Lecture 3 hrs. Cr 3.

### **ELE 471 Microprocessor Applications Engineering**

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. Input-output concepts: programmed I/O, interrupts. Microprocessor arithmetic. Prerequisites: ELE 171, 172. Lecture 2 hrs., lab 3 hrs. Cr 3.

### **ELE 475 Sequential Logic Systems**

Methods of design and testing of logic systems with memory. Algorithmic approaches to digital system design. Microprogramming. Arithmetic algorithms and implementations. Organization and design of a simple digital computer. Prerequisite: ELE 172. Lecture 3 hrs. Cr 3.

### **ELE 483 Communications Engineering**

Basic principles of modern communication engineering; methods of analysis; baseband communications;

modulation techniques; effects of noise; information transmittal. Prerequisites: MAT 350, ELE 314. Lecture 3 hrs. Cr 3.

### **ELE 486 Digital Signal Processing**

The basic principles of processing signals in discrete form. Review of Z transforms, discrete Fourier series and transforms. Flow graph and matrix representations of digital filters, digital filter design techniques, fast Fourier transforms, windowing, two-dimensional, DFT, and homographic signal processing. Emphasis is placed on using the computer to both design and realize various signal processors. Prerequisites: COS 140 or COS 160 and ELE 314. Lecture 3 hrs. Cr 3.

### **ELE 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. 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. Prerequisite: Permission of the Department. Cr 1-3.

The following mechanical engineering course is offered as part of the electrical engineering program.

### **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. Prerequisite: MAT 153. Lecture 3 hrs. Cr 3.

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## **Department of Technology**

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*Chair of the Department:* Richard Carter, Technology Center, Gorham

*Associate Professors:* Anderson, Carter, Faulkner, Kirk, W. Moore, Nannay, Zaner; *Assistant Professor:* Bazinet

Technology is the study of the creation and utilization of adaptive systems including tools, machines, materials, techniques and technical means, and the relation of the behavior of these elements and systems to human beings, society, and the civilization process. Technological concepts are presented through a variety of approaches including the lecture, technical laboratories, field experiences, industrial visitations, and cooperative programs.

The curricula of the Department of Technology provide a blend of cultural, technical, and professional courses designed to prepare individuals for teaching or industrial positions. Recognition is given to prior learning, where appropriate. Four degree programs are offered.

Responsive to the changing nature of education, the Department of Technology offers programs that lead to Maine certifications as technology educators and vocational/occupational educators. Students admitted to the Department of Technology education programs participate in professional preparation courses specifically designed to integrate technological skills acquired through coursework and/or occupational experience.

Vocational/occupational education recognizes prior learning and skill obtained through occupational experience. It is designed to prepare students for teaching in vocational/technical education or other occupational training programs and requires a minimum of three years of occupational experience as a prerequisite for the degree program. Emphasis is placed on the development of cultural and professional education.

Industrial technology is a management-oriented curriculum designed to prepare an individual for supervisory/technical/managerial roles in industry. Two options are available. For the individual without technical skills, shop/laboratory experiences provide for development of technical proficiency. For those with prior learning through occupational training/experience, trade and technical competencies are evaluated and credit granted. Both options, in cooperation with the School of Business, Economics and Management, provide a basic preparation in business administration.

The vocational technology program is an occupationally oriented curriculum designed for individuals who desire to prepare for managerial/supervisory roles. The program recognizes nontechnical occupational experience, assesses prior learning, and offers three areas of concentration in business management. A minimum of three years of occupational experience is required as a prerequisite for the degree program.

### *Policy and Delivery*

Students matriculated in the technology education and vocational/occupational education programs are required to maintain a minimum 2.5 cumulative grade point average throughout their professional course sequence.

The delivery of the professional courses requires students of both programs to focus their professional development across the breadth of technical/occupational education. In order to enable the appropriate depth of exposure, courses in the professional sequence are offered primarily in the late afternoon and early evening format, often meeting for extended time periods. In order to accommodate the needs of students, as well as the demand for quality instruction, the professional sequence may also be offered on alternating Saturdays throughout the semester, and summer institutes may be offered to fulfill professional requirements. In all cases, students are expected to enroll in professional courses during the pre-registration period to ensure program delivery.

### *Admission Requirements*

Applicants for technology education, or those without occupational experience desiring to pursue the industrial technology program, must visit the Technology Center for a tour of the facility and interviews with the faculty. Applicants will be notified of the appropriate procedure to follow and the dates available for on-campus visits.

Applicants with a minimum of three years of occupational experience who desire to pursue the industrial technology, vocational/occupational education, or vocational technology programs must submit evidence of a minimum of three years of occupational experience and appear for a personal interview. Candidates should contact the Department office for an appointment to discuss the evaluation of prior work experience in the vocational/technical field.

### *Programs and Requirements*

#### *Bachelor of Science in Technology Education*

The number of credits (including the University's Core curriculum) required for the degree: 127.

Core Curriculum (34 credits)

Basic Competence 9

Methods of Inquiry/Ways of Knowing

a. Fine Arts 6

1. Performance-centered

2. History-centered

b. Humanities 6

1. Literature

2. Other Times/Other Cultures

c. Social Sciences 6

(Students must take HRD 333J Human Growth and Development in addition to another Social Science course.)

d. Natural Sciences 4

COR course 3

Departmental Requirements (18 credits)

Science/Math (12 credits)

Mathematics 3

Statistics 3

Computer 3

Physics/Chemistry 3

General Electives (6 credits)

Technical (45 credits)

Required courses

ITT 102 Introduction to Industrial Technology

ITT 103 Materials Properties and Testing

ITT 181 Introduction to Computers in Industry

ITT	211	Electronics Technology
ITT	221	Power Systems
ITT	231	Technical Graphics
ITT	241	Graphic Communications
ITT	251	Material Processes–Metal
ITT	261	Material Processes–Wood
ITT	271	Material Processes–Polymers
ITT	282	CADD Technology
ITT	311	Communications Electronics
ITT	323	Control Systems
ITT	331	Engineering Design Graphics
ITT	342	Advanced Graphic Communications
ITT	351	Machining and Fabrication
ITT	361	Production Manufacturing in Wood

#### Technical Electives

##### Energy and Power Systems

ITT	313	Electrical Construction
ITT	383	Robotics
ITT	413	Instrumentation
ITT	414	Digital Electronics
ITT	423	Fluid Power

##### Communication

ITT	332	Architectural Drawing and Design
ITT	333	Descriptive Geometry
ITT	334	Energy Efficient Residential Design
ITT	343	Communication Design
ITT	434	Industrial Production Illustration
ITT	435	Systems Analysis and Design
ITT	444	Photographic Reproduction
ITT	445	Color Reproduction Theory

##### Materials and Processes

ITT	352	Fabrication and Forming
ITT	362	Residential Construction
ITT	363	Wood Science
ITT	440	Related Occupational Experiences/Internship
ITT	452	Metallurgy and Metrology
ITT	490	Special Problems in Technology

##### Professional Education (30 credits)

ATE	180	Technology in Perspective
ATE	280	Facility Organization and Management
ATE	312	Teaching Students with Special Needs
ATE	380	Curriculum Development
ATE	381	Methods and Materials of Instruction
ATE	402	Student Teaching
ATE	411	Measurement and Evaluation

\*Minimum 2.5 cumulative index required and must be maintained in order to register for ATE 380, ATE 381, ATE 402, and for graduation from the program. Satisfactory completion of ATE 380 and ATE 381 is prerequisite to registration for ATE 402.

#### *Bachelor of Science in Industrial Technology*

The number of credits (including the University's Core curriculum) required for the degree: 130.

#### **Option #1: Skill Development**

##### Core Curriculum (34 credits)

##### Basic Competence 9

##### Methods of Inquiry/Ways of Knowing

##### a. Fine Arts 6

##### 1. Performance-centered

##### 2. History-centered

##### b. Humanities 6

##### 1. Literature

##### 2. Other Times/Other Cultures

##### c. Social Sciences 6

(Students must take ECO 201J Economics I in addition to another social science course.)

##### d. Natural Sciences 4

COR course	3	
Departmental Requirements (18 credits)		
Science/Math	(12 credits)	
Mathematics	3	
Statistics	3	
Computer Science	3	
Physics/Chemistry	3	
General Electives (6 credits)		
Technical (39 credits)		
Required courses		
ITT	102	Introduction to Industrial Technology
ITT	103	Materials Properties and Testing
ITT	181	Introduction to Computers in Industry
ITT	211	Electronics Technology
ITT	221	Power Systems
ITT	231	Technical Graphics
ITT	241	Graphic Communications
ITT	251	Material Processes–Metal
ITT	261	Material Processes–Wood
ITT	271	Material Processes–Polymers
Technical Electives–12 credit hours		
Energy/Power Systems		
ITT	311	Communication Electronics
ITT	313	Electrical Construction
ITT	323	Control Systems
ITT	383	Robotics
ITT	413	Instrumentation
ITT	414	Digital Electronics
ITT	423	Fluid Power
Technical Communication		
ITT	282	CADD Technology
ITT	331	Engineering Design Graphics
ITT	332	Architectural Drawing and Design
ITT	333	Descriptive Geometry
ITT	334	Energy Efficient Residential Design
ITT	342	Advanced Graphic Communications
ITT	343	Communication Design
ITT	434	Industrial Production Illustration
ITT	435	Systems Analysis and Design
ITT	444	Photographic Reproduction
ITT	445	Color Reproduction Theory
Materials and Processes		
ITT	351	Machining and Fabrication
ITT	352	Fabrication and Forming
ITT	361	Production Manufacturing in Wood
ITT	362	Residential Construction
ITT	363	Wood Science
ITT	371	Plastic Technology
ITT	452	Metallurgy and Metrology
Optional Electives		
ITT	400	Occupational Competency (Verified)
ITT	440	Related Occupational Experience/Internships
ITT	490	Special Problems in Technology
Professional (39 credits)		
Required courses		
ITP	100	Industrial Organization and Management
ITP	300	Motion and Time Study
ITP	310	Plant Layout and Material Handling
ITP	320	Occupational Safety and Health
ITP	330	Production Control
ITP	340	Fundamentals of Quality
ITP	350	Conference Leading
ITP	370	Job/Work Analysis
ITP	380	Management
ITP	390	Cost Analysis and Control

ABU	111	Principles of Accounting I
ECO	202J	Principles of Economics
ITP	210	Technical Writing (ENG 306 Business and Report Writing or ENG 307 Technical Writing may be taken to satisfy this requirement)

## Option #2: Occupational Competency

### Core Curriculum (34 credits)

#### Basic Competence 9

#### Methods of Inquiry/Ways of Knowing

##### a. Fine Arts 6

##### 1. Performance-centered

##### 2. History-centered

##### b. Humanities 6

##### 1. Literature

##### 2. Other Times/Other Cultures

##### c. Social Sciences 6

(Students must take ECO 201J Economics I in addition to another social science course.)

##### d. Natural Sciences 4

#### COR course 3

### Departmental Requirements (18 credits)

#### Science/Math (12 credits)

##### Mathematics 3

##### Statistics 3

##### Computer Science 3

##### Physics/Chemistry 3

#### General Electives (6 credits)

### Technical (39 credits)

### Technical Assessment (39 credit hours maximum)

#### ITT 400 Occupational Competency

#### ITT 440 Related Occupational Experiences/Internships (two options, total credits to be no more than the difference between those granted for ITT 400 and 39 credits)

*Option #1:* This course option is designed to permit attendance at an approved industry-sponsored school or seminar for the purpose of providing the student with advanced related occupational or technical training. Courses provided by organizations such as General Motors Training Centers or International Typographical Union qualify under this option.

*Option #2:* Approved employment with a company may qualify a student under this option. Arrangements must be approved by the advisor in advance. The experiences should provide opportunities for updating occupational technical skills and knowledge. Credit will be determined on the basis of one credit for each two full weeks of employment with a maximum of three credits for each period of approved continuous full-time employment. A daily log, summary, report, and evaluation by a supervisor will constitute part of this option.

For additional information concerning either option of ITT 440, consult your advisor.

### Professional (39 credits)

#### Required courses (18 credit hours)

##### ITP 100 Industrial Organization and Management

##### ITP 300 Motion and Time Study

##### ITP 310 Plant Layout and Material Handling

##### ITP 320 Occupational Safety and Health

##### ITP 330 Production Control

##### ITP 340 Fundamentals of Quality

##### ITP 350 Conference Leading

##### ITP 370 Job/Work Analysis

##### ITP 380 Management

##### ITP 390 Cost Analysis and Control

##### ABU 111 Principles of Accounting I

##### ECO 202J Principles of Economics II

##### ITP 210 Technical Writing (ENG 306 Business and Report Writing or ENG 307 Technical Writing may be taken to satisfy this requirement)

## *Bachelor of Science in Vocational/Occupational Education*

The number of credits (including the University's Core curriculum) required for the degree: 121.

### Core Curriculum (34 credits)

#### Basic Competence 9

## Methods of Inquiry/Ways of Knowing

### a. Fine Arts 6

1. Performance-centered
2. History-centered

### b. Humanities 6

1. Literature
2. Other Times/Other Cultures

### c. Social Sciences 9

(Students must take HRD 333J Human Growth and Development in addition to two other social science courses.)

### d. Natural Sciences 4

### COR course 3

## Departmental Requirements (18 credits)

### Science/Math 12 credits

### Electives 6

## Technical Assessment (39 credits maximum)

### ITT 400 Occupational Competency

### ITT 440 Related Occupational Experiences/Internships (maximum 6 credits)

*Option #1:* This course is designed to permit attendance at an approved industry-sponsored school or seminar for the purpose of providing the student with advanced related occupational or technical training. Courses provided by organizations such as General Motors Training Centers or International Typographical Union qualify under this option.

*Option #2:* Approved employment with a company may qualify a student under this option. Arrangements must be approved by the advisor in advance. The experiences should provide opportunities for updating occupational technical skills and knowledge. Credit will be determined on the basis of one credit for each two full weeks of employment with a maximum of three credits for each period of approved continuous full-time employment. A daily log, summary, report, and evaluation by a supervisor will constitute part of this option.

For additional information concerning either option of ITT 440, consult your advisor.

## Professional Education (30 credit hours)

Required Courses: All courses 3 credits except as noted

ATE 180	Technology in Perspective
ATE 280	Facility Organization and Management
ATE 300	Occupational and Trade Analysis
ATE 312	Teaching Students with Special Needs
ATE 350	Philosophy of Vocational Education
ATE 380	Curriculum Development
ATE 381	Methods and Materials of Instruction
ATE 402	Student Teaching (variable credits)
ATE 411	Measure and Evaluation

## Recommended Electives (all 3 credit courses)–May be elected to meet credit requirement for degree, if needed

EDU 310	Preparation of Instructional Materials
ITT 282	CADD Technology
ATE 320	Coordination of Cooperative Education
ATE 420	Trends in Vocational Education
ATE 450	Local Administration and Supervision of Vocational Education
ATE 455	Development of Technical Education
ATE 460	Independent Study in Vocational Education
ITP 210	Technical Writing
ITP 320	Occupational Safety and Health
ITP 340	Fundamentals of Quality
ITP 350	Conference Leading
ITT 181	Introduction to Computers in Industry

## Bachelor of Science in Vocational Technology

The number of credits (including the University's Core curriculum) required for the degree: 121.

## Core Curriculum (34 credits)

### Basic Competence 9

## Methods of Inquiry/Ways of Knowing

### a. Fine Arts 6

1. Performance-centered
2. History-centered



- b. Humanities 6
  - 1. Literature
  - 2. Other Times/Other Cultures
- c. Social Sciences 6  
(Students must take ECO 201J Economics I in addition to another social science course.)
- d. Natural Sciences 4

COR course 3

Departmental Requirements (18 credits)

Science/Math 12 credits

Electives 6

Technical Assessment (39 credits maximum)

ITT 400 Occupational Competency

ITT 440 Related Occupational Experiences/Internships (maximum 6 credits)

*Option #1:* This course is designed to permit attendance at an approved industry-sponsored school or seminar for the purpose of providing the student with advanced related occupational or technical training. Courses provided by organizations such as General Motors Training Centers or International Typographical Union qualify under this option.

*Option #2:* Approved employment with a company may qualify a student under this option. Arrangements must be approved by the advisor in advance. The experiences should provide opportunities for updating occupational technical skills and knowledge. Credit will be determined on the basis of one credit for each two full weeks of employment with a maximum of three credits for each period of approved continuous full-time employment. A daily log, summary, report, and evaluation by a supervisor will constitute part of this option.

For additional information concerning either option of ITT 440, consult your advisor.

Professional (30 credits)

ITP 100 Industrial Organization and Management

ITP 210 Technical Writing

ITP 320 Occupational Safety and Health

ITP 340 Fundamentals of Quality

ITP 350 Conference Leading

ITP 370 Job/Work Analysis

ITP 380 Management

ECO 202J Microeconomics

A Course in Human Relations

## Laboratory Fees

Laboratory fees to cover the cost of materials and supplies are assessed in many ITT courses.

### ITT 102 Introduction to Industrial Technology

An introductory study of industry and technology. Emphasis on developing an understanding of the basic concepts and functions of industry, the application of technology, and the life cycle of goods and services. Basic conceptual models and skills relating to production, communications, and power systems defined and developed. Lecture and lab. Cr 3.

### ITT 103 Materials Properties and Testing

A study of the basic properties of industrial materials, structures and testing procedures used to determine those properties. Studies include physical, mechanical, optical, chemical, thermal, and electrical properties. Testing and associated literature and reporting procedures, calculation and measurement are also included. Cr 3.

### ITT 181 Introduction to Computers in Industry

An introduction to current and emerging computer applications utilized in industry and technology. Basic computer operation, programming fundamentals, and the use of general industrial applications software and hardware will be included. Emphasis on computer terms, concepts, and uses as they relate to industrial

management, computer-aided design, computer-aided manufacturing, graphics, and related industrial applications. Lecture and lab. Cr 3.

### ITT 211 Electronics Technology

A study of the fundamental concepts, devices, and applications of AC and DC theory with an introduction to semiconductor theory. Use of laboratory test equipment in defining circuit status is included. Computer aided instruction in the laboratory is emphasized. Cr 3.

### ITT 221 Power Systems

An introduction to the broad field of power. Power is examined from its relationship to energy and electro-mechanical devices. Laboratory experiences include design and construction, servicing and maintenance, testing and evaluation of electro-mechanical devices and systems. Cr 3.

### ITT 231 Technical Graphics

Concepts of spatial relationships and visualizations with related techniques. Basic skill development and understanding taught through freehand illustrations as well as conventional instruments and devices.

Multiview projections, pictorial techniques, primary and secondary auxiliaries, detail and assembly working drawings, and reproduction techniques. Contemporary industrial practices and processes. Cr 3.

#### **ITT 241 Graphic Communications**

A comprehensive study of technologies associated with the creation, duplication, conversion, storage/retrieval, and transmission of graphic images. Included are laboratory activities involving the design, development, and production of graphic materials utilizing current and emerging industrial techniques. Lecture and lab. Cr 3.

#### **ITT 251 Material Processes-Metals**

A laboratory course consisting of the study of manufacturing processes that are common in today's metal manufacturing industries. Processes covered include: material identification, material removal, forming/shaping, deformation, casting, fastening/joining, heat treatment, finishing and associated measurement/calculations. Lab activity involves these processes in manufacturing of products. Prerequisites: ITT 102, ITT 103, ITT 231 or permission. Cr 3.

#### **ITT 261 Material Processes-Woods**

The processing of wood and wood related composites as they relate to manufacturing and construction. Laboratory experiences will follow assigned sets of problem-solving criteria provided by the instructor. In turn the student will design around the provided criteria and develop prototypes using standard methods and processes utilized in industry. Prerequisites: ITT 102, ITT 103 or permission. Cr 3.

#### **ITT 271 Material Processes-Polymers**

A study of plastics as a material and the basic industrial process used to produce plastic products. Included are basic polymer chemistry, injection molding, extrusion, blow molding, compression and transfer molding, thermoforming, roll forming, lamination, casting, expansion, thermofusion, fabrication and bonding, product design, mold design and construction. Cr 3.

#### **ITT 282 CADD Technology**

A study of computer utilization in the areas of designing, engineering, manufacturing, and documenting as they relate to production processes. Emphasis on the utilization of computer-aided drafting and design (CADD) and computer-aided manufacturing (CAM) hardware and software. Lecture and lab. Prerequisite: ITT 281 or equivalent. Cr 3.

#### **ITT 311 Communication Electronics**

A detailed study of communication circuits and applications; including AC-DC fundamentals for communication, device theory and circuits, power supplies and communication systems. Laboratory sessions focus on equipment use and measurement of circuit parameters on student assembled receivers. Prerequisite: ITT 211 or permission. Cr 3.

#### **ITT 313 Electrical Construction**

A study of electrical wiring, control circuits and motors, as they relate to industrial and residential ap-

plications. Laboratory experiences and field study are used to enhance the student's learning. Prerequisite: ITT 211 or permission. Cr 3.

#### **ITT 323 Control Systems**

The study of instruments, controls, and sensory devices used to monitor and control industrial processes. Emphasis is placed on design, construction, operation, installation, and troubleshooting of industrial control systems. Cr 3.

#### **ITT 331 Engineering Design Graphics**

Contemporary industrial practices and techniques of advanced spatial and dimensional theory utilizing orthographic and pictorial techniques. Emphasis will be on design criteria selection and implementation employing standard scientific procedures. Both individual and team assignments will be used. Prerequisite: ITT 231 or permission. Cr 3.

#### **ITT 332 Architectural Drawing and Design**

Basic architectural design and drawing as related to residential and light construction. A detailed set of plans for a single home will be executed. Construction techniques, environmental considerations, building materials, specifications, costs and financing, codes and zoning, schedules, and architectural models. Prerequisite: ITT 331 or equivalent or permission. Cr 3.

#### **ITT 333 Descriptive Geometry**

A basic course in descriptive geometry with discussions and practice in advanced projection analysis, vector geometry and graphical mathematics. Theoretical and practical problems shall be solved utilizing standard graphic techniques and concepts and through the use of line, point and plane models. Cr 3.

#### **ITT 334 Energy Efficient Residential Design**

Contemporary residential design criteria and practices, logically presented in both conceptual and practical format with emphasis on energy efficiency without sacrificing aesthetics. Problems will be worked in class as well as outside. Final design results will be analyzed using a special computer program. Topics will include: several solar strategies with emphasis on superinsulation techniques, insulation types and levels, air-vapor retarders, indoor air quality, heating systems, glazing, economics. Cr 3.

#### **ITT 342 Advanced Graphic Communications**

A study of computer-aided design systems and their relationship to design, development, manufacturing, and documentation processes. Emphasis on the utilization of computer-aided drafting and design (CADD) hardware and software. Emphasis is on basic functions as they generally apply to computer-aided design systems. Prerequisite: ITT 281 or equivalent. Cr 3.

#### **ITT 343 Communications Design**

An introduction to the principles of design and layout in the development of copy for graphic reproduction. Emphasis on a design process, design principles, manuscript and illustration preparation, computer and photographic techniques, cost analysis, and preparing

production specifications. Prerequisite: ITT 241 or permission. Cr 3.

### **ITT 351 Machining and Fabrication**

A study of metal industries concerned with electric and gas welding and machining techniques. Emphasis on process engineering. Laboratory and maintenance practices. Prerequisite: ITT 251 or permission. Cr 3.

### **ITT 352 Fabrication and Forming**

Concepts, principles, and activities in TIG welding, sheet metal fabrication, and casting techniques as they relate to the manufacturing and construction industries. Group and individual problems and activities. Prerequisite: ITT 251 or permission. Cr 3.

### **ITT 361 Production Manufacturing in Wood**

Production and wood manufacturing problems including production planning, mass production, jigs, fixtures, special machine operations, CNC application, CADD development, and advanced finishing techniques. General maintenance procedures on production equipment. Group and individual research assignments and related technical problems. Prerequisite: ITT 261 or permission. Cr 3.

### **ITT 362 Residential Construction**

A study of the residential construction industries including construction principles, computer cost estimating, insight into energy efficient building design, layout, foundation, framing, exterior covering, and finish. Related areas of services, plot planning, earth-moving principles considered in research activities. Group and individual problems. Prerequisite: ITT 261 or permission. Cr 3.

### **ITT 363 Wood Science**

Wood anatomy and identification experiences leading into a study of the properties of wood, wood-liquid relations, bonding and finishing of wood, and machining as they relate to the manufacturing processes. Prerequisite: ITT 261 or permission. Cr 3.

### **ITT 383 Robotics**

An introduction to the technology, nomenclature, integration and application of robots and their associated systems in manufacturing and industrial applications. This course should provide a 'working knowledge' background for any individual interested in entering the field of automated manufacturing/robotics. 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. (See your advisor for further information). Cr 1-45.

### **ITT 413 Instrumentation and Process Control**

A study of instruments and sensing devices used to observe and/or control processes in our industrial society. Laboratory and field experiences to research

and/or construct an instrument of interest to the student. Prerequisite: ITT 211 or permission. Cr 3.

### **ITT 414 Digital Electronics**

A study of the fundamentals of digital logic and logic systems. Laboratory experiences with typical circuits using semiconductor devices, including diodes, transistors and integrated circuits. Prerequisite: ITT 211 or permission. Cr 3.

### **ITT 423 Fluid Power**

A study of fluids at work. Investigation of the theory and application of hydraulics and pneumatics in technology and industry. Design, construction, and maintenance of fluid power devices and systems included. Cr 3.

### **ITT 434 Industrial Production Illustration**

Principles and techniques employed by contemporary industry to graphically describe industrial products, technical concepts, and service information. The media range will include chalk, ink, pencil, charcoal, water color, tempera, pressure sensitive transfer symbols, and various methods of graphic reproduction. Engineering and architectural problems. Prerequisite: ITT 231 or permission. Cr 3.

### **ITT 435 Systems Analysis and Design**

Research applied to solving basic engineering problems. Contemporary systems of analysis and design. Economic factors, resource utilization, planning, design, model construction, follow-up studies and evaluation techniques applied to specific practical problems. Prerequisite: ITT 331 or permission. Cr 3.

### **ITT 440 Related Occupational Experiences/Internships**

Two options,  
OPTION NO. 1

This course option is designed to permit attendance at an approved industry-sponsored school or seminar for the purpose of providing the student with advanced related occupational or technical training. Courses provided by organizations such as General Motors Training Centers, or International Typographical Union, qualify under this course option. Cr 1-6.

OPTION NO. 2

Approved employment with a company may qualify a student under this option. Arrangements must be approved by the advisor in advance. The experiences should provide opportunities for updating technical skills and knowledge. Credit will be determined on the basis of one credit for each two full weeks of employment (80 hrs) with a maximum of three credits for each period of approved continuous full-time employment. A daily log, summary report and evaluation by an industrial supervisor will constitute part of this option. Cr 1-3.

For additional information concerning either option of ITT 440, consult your advisor.

**ITT 444 Photographic Reproduction**

Photographic concepts, processes, and techniques utilized in graphic reproduction. Experience in contact printing, continuous tone enlarging, duotones, posterization, and color separation. Prerequisite: ITT 241 or permission. Cr 3.

**ITT 452 Metallurgy and Metrology**

The technology of metallurgy and metrology. Heat treatment, powdered metals, machining and inspection of metal parts. Individual and group activity. Prerequisite: ITT 103 or permission. Cr 3.

**ITT 455 Color Reproduction and Theory**

Advanced study in the additive and subtractive theories of color reproduction. Experiences in photographic separation and offset press printing of color originals. Emphasis on understanding physiological and psychological responses to color. Lecture and lab. Prerequisite: ITT 444 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. Cr 1.

**ATE 180 Technology in Perspective**

An introduction to the development of technology and technological systems in historical, cultural, and environmental context. Students will develop a personal philosophy of technology and its relation to culture and the environment; and understand the nature of both historic and contemporary technology and technological systems. Cr 3.

**ATE 280 Facility Organization and Management**

A course in which the student will develop an understanding of the administrative principles and practices which provide for highly effective instruction in industrial, vocational, and technical classrooms and laboratories. Students will organize systems for student supervision and accountability; organize personnel and maintenance systems; develop and employ a safety education program in compliance with state of Maine and OSHA regulations; develop and employ an organized budget/procurement schedule; and design and implement a contemporary laboratory/workplace environment. Cr 3.

**ATE 300 Occupational and Trade Analysis**

Identification of occupational or trade fields, units, operations, and items of related information. Cr 3.

**ATE 312 Teaching Students with Special Needs**

A foundational requirement providing technical managers, vocational instructors, and technology educators with a fundamental understanding of the federal legislation regarding special needs, its implementation in the workplace and learning environment. Students will be aware of federal legislation and its implications in the related environment; identify and diagnose exceptional individuals; provide

appropriate materials for exceptional individuals; modify working and learning environments; and monitor, assess, and advise exceptional individuals in the working and learning environment. Cr 3.

**ATE 320 Coordination of Cooperative Education**

The role of the coordinator in organizing and conducting a program of work-study experience in high school. Introduction to cooperative half-time training, community survey, advisory committees, laws and regulations; and examination of the responsibilities and activities of the coordinator. Cr 3.

**ATE 350 Philosophy of Vocational Education**

A survey of the history and philosophy of vocational education in the United States with emphasis upon recent developments. Cr 3.

**ATE 380 Curriculum Development**

A course in the identification and development of curriculum materials focusing on the techniques needed to develop units and courses of study. Students will be able to analyze the instructional situation; develop educational goals and objectives; identify educational activities to achieve those objectives; identify evaluation activities related to the objectives; specify subject content for the course; schedule unit and course activities; and locate resources to support the instruction. Cr 3.

**ATE 381 Methods and Materials of Instruction**

A course of study in which the students are introduced to the various teaching methods and techniques of professional and effective practitioners. Students will develop their own learning and teaching styles. Included in this course are the procurement/creation and utilization of contemporary instructional equipment and teaching materials. Students will evaluate, prepare, and utilize appropriate, relevant instructional materials; plan, prepare, and present lessons; promote effective student use of the learning environment; and organize objectives, develop teaching plans, and evaluate measures of learning. Cr 3.

**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. Cr variable.

**ATE 411 Measurement and Evaluation**

A course in educational measurement and evaluation, focusing on teacher made achievement and performance tests, and grading. Students will understand the characteristics of effective evaluation instruments and grading systems; be able to evaluate various types of measurement instruments; be able to develop and effectively use evaluation instruments; and be able to develop and use effective competency based and norm referenced grading systems. Cr 3.

**ATE 420 Trends in Vocational Education**

Identification, analysis, and discussion of major problems and trends in vocational education. Cr 3.

### **ATE 450 Local Administration and Supervision of Vocational Education**

Procedure and practices utilized in establishing, promoting, coordinating, supervising, controlling vocational programs on the local level. Cr 3.

### **ATE 460 Independent Study in Vocational Education**

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 completeness. Permission of advisor. Cr 3.

### **ITP 100 Industrial Organization and Management**

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. Stress will be on management practices. Emphasis will also be placed upon contemporary issues/problems/trends associated with a global economy. 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: competence in basic expository writing. Cr 3.

### **ITP 300 Motion and Time Study**

A study of techniques to utilize available resources (men, material, machines and facilities) in the most effective and economical manner giving full recognition to the human factors involved in engineering work methods and time measurements. Cr 3.

### **ITP 310 Plant Layout and Material Handling**

A study of materials flow, layout production, assembly and service departments, manufacturing, buildings, service departments, handling equipment, and packaging techniques. Cr 3.

### **ITP 320 Occupational Safety and Health**

This introductory course provides input into the importance of safety and health in occupations. Emphasis will be placed on the worker, the work environment including such special emphasis areas as robotics, hygiene, hazard identification, machine

safeguarding, hazardous waste, loss control, and current local, state, and federal legislation. 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, forecasting, scheduling, capacity planning, material requirements planning, economic order quantities, ABC analysis, line balancing, and just-in-time techniques. Cr 3.

### **ITP 340 Fundamentals of Quality**

An overview of fundamental concepts and principles of quality control. The course will cover techniques utilized from the simplest products test to process control engineering and will include incoming material control, inspection sampling and quality control management. The course will cover practical application for installing quality control systems using actual case studies developed by participants. Cr 3.

### **ITP 350 Conference Leading**

A course in philosophy and techniques of organizing and conducting successful conferences. Each participant will assume the responsibility of planning and leading a simulated conference. Cr 3.

### **ITP 370 Job/Work Analysis**

The course in job analysis is basic to the functional aspects of work involved in producing goods and services in our economy. It is a first course in applied research, helping the technology major to understand the importance of being methodical in one's study and one's work. There is also emphasis in the course on career development, work design, work ethic and work productivity. A semester project requires students to analyze a job in terms of relevant duties, tasks, job methods and requirements. Cr 3.

### **ITP 380 Management**

Fundamental principles of management as applied to business and industrial settings. The functions of management, introduced in ITP 100, will be given broader treatment by considering management of manufacturing firms. Prerequisite: ITP 100. Cr 3.

### **ITP 390 Cost Analysis and Control**

Study of the techniques of cost estimation for products, processes, equipment, projects, and systems. Cr 3.

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# SCHOOL OF NURSING

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*Interim Dean:* Julia C. Tiffany

*Interim Associate Dean:* Janet Z. Burson; *Chair of Undergraduate Nursing Program:* Jeanne Normandeau; *Chair of Graduate Nursing Program:* Martha Skoner; *Chair of Recreation and Leisure Studies:* Linda Meyer

Faculty in Nursing Programs

*Professor:* MacPherson; *Associate Professors:* Burson, Fournier, Healy, Normandeau, Paltrow, Peake-Godin, Rodgers, Skoner, Thompson, Tiffany, Tukey; *Assistant Professors:* Hastings-Tolsma, Haylor, Johnson, Keith, Vines, Wood-Smith; *Instructor:* Ellis

Faculty in Recreation and Leisure Studies

*Associate Professors:* Meyer, McCullough; *Assistant Professors:* Martin, Willard; *Instructor:* O'Connor; *Professor Emeritus:* Sullivan

The School of Nursing (SON) offers programs leading to baccalaureate or master's degrees in nursing and baccalaureate or associate degrees in therapeutic recreation. In addition, it offers a minor in health studies for students not majoring in nursing. 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 master's degree in nursing. The SON is approved by the Maine State Board of Nursing and received an eight-year accreditation award by the National League for Nursing in 1988. The School's aims are consistent with the mission of the University.

## DEPARTMENT OF UNDERGRADUATE NURSING

The undergraduate program prepares graduates to:

1. Apply theoretical and empirical knowledge from nursing, the behavioral and physical sciences, and the humanities to the practice of professional nursing.
2. Utilize the nursing process in the delivery of professional nursing service.
3. Provide professional nursing care to a diverse, multicultural population across the life span at various points along the health continuum within a variety of settings.
4. Collaborate with consumers and other health professionals to enhance clients' abilities to attain full potential and optimal health.
5. Utilize principles of leadership in the implementation of entry level professional nursing roles.
6. Integrate research findings in nursing practice.
7. Recognize the importance of life-long learning.
8. Demonstrate professional and personal accountability.

Graduates are prepared to begin their nursing practice in a variety of health care settings and in a variety of specialty areas. A foundation to assume beginning leadership and management positions and to begin graduate studies is also provided.

The undergraduate program requires the completion of 120-121 credits of study and culminates in a baccalaureate degree. Graduates are eligible to sit for State Board licensure exams upon completion of the program.

Because so much of the undergraduate nursing program entails supervised clinical experience, the SON faculty reserve the right to limit enrollments. SAT requirements for admission are a minimum of 400 math and 400 verbal or 850 combined. Candidates must rank in the top 50% of their high school graduating class.

Any student enrolled in or seeking enrollment in SON courses must be advised by SON faculty. All transfer students must fulfill USM's 30 credit residency requirement. Transfer students must have a GPA of 2.5 for admission.

### ***Admission and Non-academic Requirements***

In addition to requirements established for admission to the University, the School of Nursing requires high school chemistry and biology with labs. See admission section of the catalog for further requirements.

Because health care workers are at a higher risk for certain illnesses, all students must meet the health requirements of the School. These requirements are listed in the student handbook, available through the dean's office. Students must have at least 2 of 3 hepatitis B immunization injections prior to entry into health assessment. The total series of 3 must be completed prior to entry into clinical courses. Student health records must be on file in the University Health Center prior to entry into clinical courses.

A \$15.00 lab fee is assessed for each semester which includes laboratory courses to cover laboratory costs. Nursing majors must purchase uniforms and lab coats and must be certified in cardiopulmonary resuscitation (CPR) prior to entry into clinical courses. Since clinical experiences occur in a variety of settings in the southern Maine area, students must provide their own transportation. Professional liability insurance and health insurance are highly recommended for students in the nursing major.

## Academic Requirements

### Prerequisites in the Integrated Curriculum

Enrollment in nursing courses at the upper-division is dependent on the successful completion of prerequisite requirements.

Prerequisite courses to the upper-division nursing major consist of competencies (English Composition, Quantitative Decision Making, Skills of Analysis/Philosophy), physical and behavioral sciences, humanities, and fine arts. Nursing students must achieve a minimum of 2.25 grade point average in designated prerequisite courses in order to be eligible to progress to the 300-level nursing major courses. Grades below C- are not acceptable in prerequisite courses. For graduation, no more than 3 credits of non-nursing elective courses can be taken pass-fail and only one D grade in courses other than nursing or nursing prerequisites will be accepted.

### Prerequisite Requirement Areas

#### General Education Requirements

*English Composition	0-3 credits
*Philosophy	3 credits
Humanities	6 credits
Fine Arts	6 credits
Statistics	3 credits
	<hr/>
	18-21 credits

#### Physical Science Requirements

*Human Anatomy and Physiology and Lab	9 credits
**Inorganic Chemistry	3 credits
*Organic or Bio Chemistry and Lab	4 credits
*Microbiology and Lab	4 credits
*Nutrition	3 credits
	<hr/>
	23 credits

#### Social Science Requirements

*Introductory Psychology	3 credits
*Introductory Sociology	3 credits
*Human Growth & Development (life span preferred)	3 credits
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	9 credits

#### Nursing

Introduction to Professional Nursing	2 credits
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#### Other

General Electives (can include nursing electives)

### Prerequisites in the SON Undergraduate Curriculum:

The following courses must be taken before entry into junior-level clinical nursing courses:

Course	Prerequisites
**Inorganic Chemistry	
Introduction to Sociology	
Introduction to Psychology	
College Writing	
Organic Chemistry	**Inorganic Chemistry
Anatomy/Physiology	
Growth & Development	
Philosophy	College Writing
Introduction to Nursing	
Pathophysiology	Anatomy/Physiology I & II
Microbiology	Organic Chemistry & Anatomy/Physiology I & II
Nutrition	Organic or Biochemistry; Anatomy/Physiology I & II
Health Assessment	Intro to Nursing & Anatomy/Physiology
Pharmacology	Organic Chemistry
Fundamentals of Nursing	

In addition, Statistics must be completed before taking Nursing Research.

\*Must be completed before entering 300-level nursing courses.

\*\*May be waived with permission of SON advisor.

### Nursing Courses

Nursing content at the upper division is organized to facilitate the integration of nursing knowledge and skill and to draw on a foundation of learning from other disciplines. Courses focus on the use of the nursing

process to promote, maintain, and restore the health of clients. Students have experiences which involve assessment, planning, implementation, and evaluation of care for individuals of all ages, in families, groups of clients, and communities on all spectra of the health continuum. Inpatient and outpatient hospital settings, community health agencies, community settings, nursing homes, schools, and industries are used for clinical experience.

### *Upper Division Nursing Courses*

NUR	301	Sociocultural Issues in Health and Health Care	3 credits
NUR	302	Pharmacology	3 credits
NUR	311	Reproductive & Sexual Health Nursing	2 credits
NUR	312	Reproductive & Sexual Health Nursing Lab	2 credits
NUR	315	Child Health Nursing	2 credits
NUR	316	Child Health Nursing Lab	2 credits
NUR	320	Introduction to Adult Health Nursing	2 credits
NUR	321	Introduction to Adult Health Nursing Lab	2 credits
NUR	324	Older Adult Health Nursing	2 credits
NUR	325	Older Adult Health Nursing Lab	2 credits
NUR	401	Health-Related Research	3 credits
NUR	402	Adult Health Nursing	2 credits
NUR	403	Adult Health Nursing Lab	2 credits
NUR	410	Mental Health Nursing	2 credits
NUR	411	Mental Health Nursing Lab	2 credits
NUR	415	Concepts in Community Health	2 credits
NUR	416	Community Health Nursing Lab	2 credits
NUR	470	Professional Issues	2 credits
NUR	480	Concentrated Clinical Practicum	2 credits
			<hr/>
			41 credits

### *Retention/Progression Policies*

The following are exceptions or additions to University progression policies.

Students within the School of Nursing must maintain class standing according to hours accomplished, with a grade point average as follows:

<i>Credit Hours</i>	<i>For Good Standing</i>	<i>For Probationary Standing</i>
46-120	2.25	2.0
31-45	2.0	1.8
0-30	1.8	1.6

Standards apply to both part-time and full-time students. Probation lasts for a period of one semester. These standards allow the beginning or non-traditional student to adjust to school and studies. By maintaining a 2.25 GPA or above during the upper-division years, the student maintains a standard appropriate to professional practice.

The faculty of the School of Nursing reserves the privilege of retaining only those students who, in the judgment of the faculty, satisfy the requirements of scholarship, health, and personal suitability for nursing.

Nursing lecture and clinical courses must be taken concurrently the first time a student is enrolled in each course.

A grade of D or F in a nursing lecture or clinical course will stop progression within the School of Nursing until corrected. Only the course in which the D or F is received needs to be repeated. The student must achieve a grade of C- or better in the course which is repeated before entering the next nursing lecture or clinical course. A course may be repeated only once.

A student who receives an F grade in any course with a NUR designation, who is able to maintain a grade point average of 2.25, will be allowed to take the course one time when it is offered again. The course must be passed with a grade of C- or above. A student who is unable to maintain a grade point average of 2.25, but whose average remains above 2.00, 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 2.25 or above, at which point progress in nursing lecture and clinical courses may resume. A student who receives a D or F grade in courses with a NUR designation and who is unable to maintain a grade point average of 2.00 will be dismissed from the School of Nursing and either be dismissed, required to change majors, or suspended from the University according to its policies.

The academic record of a student who receives multiple grades of F in nursing and/or support courses or an F in a nursing clinical course will be reviewed by the committee for academic advancement. Matters of personal concern to the student will be considered. The committee will recommend to the dean a decision regarding progression or dismissal.



### *Incomplete Grades*

A temporary grade may be assigned by faculty when a student, because of extraordinary circumstances, has failed to complete course requirements in a nursing course. Incomplete grades in sequential nursing courses must be completed with a letter grade of C- or better before progressing to the next course in the sequence.

### *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 120-121 credit hours with a grade point average of at least 2.25.

### *RN Studies Option*

Recognizing the need and desirability for registered nurses to attain baccalaureate and master's degrees within the state, SON faculty have 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 promote dialogue and 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 780-4802.

All RNs must fulfill the USM's 30 credit residency requirement.

The SON recognizes 19 credits from basic nursing courses transferred from an associate degree (ADN) program accredited by the National League for Nursing (NLN) at the time the degree was awarded. These credits are applied toward fulfillment of the baccalaureate requirements for RN students who have successfully completed NUR 304 RN Transition.

RNs graduating from a diploma program or an associate degree program school not accredited by the NLN at the time their degree was awarded may elect to sit for an examination or to prepare a portfolio documenting their learning. Portfolio evaluation must go through the Office of Prior Learning Assessment.

The following courses must be completed prior to entry into the upper division nursing courses or are available for credit by examination.

English Composition	Anatomy and Physiology I & II
**Inorganic Chemistry	Growth and Development
General Psychology	Pathophysiology
General Sociology	Nutrition
	Microbiology

The following courses must be completed prior to entry into the upper division nursing courses.

Organic or Biochemistry  
Statistics (prerequisite to research)  
Philosophy

University requirements in the humanities, fine arts, and Core curriculum may be taken any time prior to graduation.

\*\*May be waived with permission of SON advisor.

Upper division nursing courses for RNs include:

	Credits	Prerequisites
RN Transition	5	
*Total Health Assessment	3	
*Pharmacology	3	
RN Credit Options	19	
*Concepts in Mental Health	3	
Health Related Research	3	Statistics
Concepts in Community Health	3	
Nursing IV Laboratory	4	RN Transition, Total Health Assessment, Pharmacology, Concepts in Mental Health, Nutrition and RN Credit Options
Leadership and Issues in Professional Nursing	4	RN Transition

\*Available for credit by examination

### *Admission Requirements for the RN to BS Option*

The RN applicant must (a) meet the general admission requirements of the University; (b) achieve a minimum 2.25 grade point average in prerequisite courses prior to progression to the nursing courses; (c) provide evidence (photocopy) of current licensure as a registered nurse in Maine; (d) provide evidence (photocopy)

of coverage by professional liability insurance. 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.

### *Option for Non-nurses with Degrees in Other Fields (second degree option)*

Recognizing the increasing interest in nursing by individuals with baccalaureate degrees in other fields, SON 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.

### *Minor in Health Studies*

The School of Nursing minor in health studies is designed to meet a growing interest in preventive health measures and self-care. Health studies offers courses in two areas of concentration: health promotion and health/fitness. The minimum number of credits required for the minor: 18.

Students seeking to minor in health studies must:

1. Complete NUR 280 Holistic Health I, and NUR 281 Holistic Health II.
2. For the health promotion concentration, complete 3 of the following: REC 216, REC 285, NFS 252, NUR 456 and one additional course from the preceding list or one of the following: REC 219, REC 279, REC 280.
3. For the health/fitness concentration, complete the following: REC 219, REC 280, REC 281, REC 395.

The health promotion concentration includes: REC 199, NUR 321, NUR 404, NUR 324, NUR 306, NUR 456.

The health/fitness concentration includes: REC 219, REC 277, REC 279, REC 280, REC 343, REC 281, REC 282, REC 283.

Health studies courses are open to students enrolled in the health studies minor and to those who simply wish to enroll in courses to satisfy personal needs or interests. The minor is not available to students with a nursing major; it is open to students majoring in the therapeutic recreation program.

### *Nursing Courses: Integrated Curriculum*

#### **NFS 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: Anatomy and Physiology; Organic Chemistry or Biochemistry. For challenge information of NFS 252, contact the School of Nursing. Cr 3.

#### **NUR 200 Introduction to Professional Nursing**

This course introduces the student to historical and contemporary perspectives regarding the nature and scope of professional nursing. It explores the relationship between professional nursing and the broad base of theoretical and empirical knowledge derived from the behavioral and physical sciences and the humanities. It examines the role of the nurse as communicator and caregiver with a diverse, multi-cultural population in a variety of settings. Open to any sophomore standing University student. Cr 3.

#### **NUR 209 Health Assessment**

This course provides the student with knowledge and skills necessary to conduct an in-depth holistic health assessment of well individuals of all ages. Emphasis is placed on data collection through development of communication, interviewing, history-taking, physical examination skills, and data synthesis with formulation of nursing diagnoses. Prerequisite: Anatomy and Physiology. Cr 2.

#### **NUR 210 Health Assessment Lab**

This course provides opportunities for students to apply knowledge and skills necessary to conduct total health assessment of clients of all ages. (Concurrent with Health Assessment) Cr 1.

#### **NUR 212 Fundamentals of Nursing**

This course introduces the student to concepts and skills basic to the art and science of nursing. Foundational nursing skills/actions used in most practice settings are presented. Cr 2.

#### **NUR 301 Sociocultural Issues in Health and Health Care**

This course explores professional nursing's role in mediating client health care needs and societal values. Students examine the influence of gender, sexuality, ethnicity, culture, spirituality, and lifestyle on the client's definition of optimal health and the attainment of health care. The nursing roles of advocate and communicator are emphasized. Cr 3.

#### **NUR 302 Pharmacology**

Basic concepts in pharmacology including major drug categories, drug interactions, the use of the nursing process in the therapeutic administration of drugs, legal implications, and the physical and psychological effects of drugs on various age groups will be emphasized. Prerequisites: Human Anatomy and Physiology. Junior standing students in nursing accepted. Permission of instructor for non-nursing majors. Cr 3.

#### **NUR 304 RN Transition**

This course introduces the RN student to the nature and scope of professional nursing. The student studies the theories and concepts that form a basis for professional nursing practice with individuals and families. Nursing process is utilized to define the needs for health promotion, restoration, and maintenance for clients at various developmental levels in a variety of settings and in a culturally diverse society. The study of nursing history and the development of nursing theory is initiated. Students use research to

examine the role of the professional nurse and to explore family theory, crisis theory, and teaching and learning theory. Legal and ethical issues related to the delivery of health care are discussed. Open to RN students only. Prerequisite: RN license. Cr 5.

### **NUR 311 Reproductive and Sexual Health Nursing**

Emphasizing the health care needs of the reproductive family, this course examines issues of reproductive health from adolescence through older adulthood. Content stresses the nursing roles of teacher, communicator, and caregiver related to client needs with menarche, fertility, parenting, sexuality, sexual functioning, menopause, common health problems of the male and female reproductive system. Cr 2.

### **NUR 312 Reproductive and Sexual Health Nursing Lab**

This course offers students learning experiences in providing nursing care to families during perinatal experiences. It also offers students the opportunity to apply knowledge of client reproductive health care needs at other points in the life span. (Concurrent with NUR 311) Cr 2.

### **NUR 315 Child Health Nursing**

This course presents theory and research findings on family-centered nursing in the health promotion and health care of children. Students study health needs and common health problems of children at different developmental stages. Nursing roles and strategies consider personal, family, environmental, and societal influences on child health. Cr 2.

### **NUR 316 Child Health Nursing Lab**

This course offers students learning experiences in providing health care to children. In community and/or acute care settings students practice family-centered nursing care with children at different stages and with different health care needs. Recognizing the research base of nursing practice, students plan and evaluate their nursing interventions. (Concurrent with NUR 315) Cr 2.

### **NUR 320 Introduction to Adult Health Nursing**

Students will explore research-based therapeutic nursing interventions which support adult clients experiencing health problems. This course will enable students to develop and practice critical thinking skills necessary for delivery of family-centered care in today's complex health care system. The emphasis is on major health problems in the United States. The roles of collaboration, advocacy, and teaching are introduced as the nurse interacts with clients who are viewed as holistic beings. Cr 2.

### **NUR 321 Introduction to Adult Health Nursing Lab**

Students will intervene therapeutically with 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 320) Cr 2.

### **NUR 324 Older Adult Health Nursing**

This course will offer students a broad based per-

spective on current gerontological theories and issues related to aging in this society. The older person is viewed within a holistic realm relevant to nursing practice. Emphasis will be placed on health care needs and growth potential of aging persons. Cr 2.

### **NUR 325 Older Adult Health Nursing Lab**

This course offers students an opportunity to focus nursing practice on the unique health problems and psychosocial issues of older adults. A variety of clinical sites may be utilized including, but not limited to, home health agencies, nursing homes, and acute care hospitals. (Concurrent with NUR 324) Cr 2.

### **NUR 351 RN Credit Options**

RNs graduating from a diploma program or an associate degree program school not accredited by NLN at the time their degree was awarded may elect to sit for an examination or to prepare a portfolio documenting their learning. Cr 19.

### **NUR 400 Nursing Process III**

In this course theory and research findings are presented on the use of the nursing process in the health promotion, maintenance, restoration, and adaptation of individuals, families, and groups with long-term alterations in health. Students study the needs of clients at different developmental stages, in a variety of health care settings, and representative of a culturally diverse society. Multiple nursing roles, including collaborator and coordinator, are examined, with emphasis on nursing functions in management and change of health behaviors. Prerequisites: NUR 305, NUR 355, and NUR 352. Concurrently: NUR 450. Cr 3.

### **NUR 401 Health-Related Research**

Introduction to health-related research with an emphasis on understanding the research process and becoming a consumer of research. Application of current research findings to nursing practice is a major component of the course. Prerequisites: Statistics; RN students; senior standing in the School of Nursing, or permission of instructor. Cr 3.

### **NUR 402 Adult Health Nursing**

Students will explore research-based therapeutic nursing interventions which support adult clients experiencing complex health problems. This course will enable students to develop and practice critical thinking skills necessary for delivery of family-centered care. The emphasis is on major health problems in the United States. The nursing roles of coordinator and leader are introduced. Cr 2.

### **NUR 403 Adult Health Nursing Lab**

Students will intervene therapeutically with 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 402) Cr 2.

### **NUR 405 Nursing Process IV**

In this course theory and research findings are presented on the use of the nursing process in the

health promotion, maintenance, restoration, and adaptation of individuals, families, groups, and communities with complex alterations in health. Students study the needs of clients at different developmental stages, in a variety of health care settings, and representative of a culturally diverse society. Multiple nursing roles, including leader/case manager, are examined. Prerequisites: NUR 400 and NUR 450.

Cr 3.

#### **NUR 407 Leadership and Issues in Professional Nursing**

Theories of leadership, organizations, and planned change are presented. The student will analyze systems and methods of health care delivery and identify factors and strategies which inhibit or facilitate change. Professional and ethical issues, legislation, and emerging role in nursing will be analyzed. An experiential component is required and varies with the student's learning objectives and interests. Prerequisites: All laboratory and process nursing courses except concurrent with NUR 405 and NUR 455; RN students must have completed NUR 304.

Cr 4.

#### **NUR 410 Mental Health Nursing**

This course introduces concepts and principles basic to mental health nursing. The focus will be on the understanding of personality development and its behavioral manifestations. Assessment of clients and intervention strategies are explored. Interdisciplinary aspects of mental health care delivery and current issues in mental health nursing will be discussed.

Cr 2.

#### **NUR 411 Mental Health Nursing Lab**

This course is designed to provide clinical experience with a mental health/psychiatric nursing focus. The emphasis is on application of concepts of mental health/psychiatric nursing. (Concurrent with Mental Health Nursing, NUR 410)

Cr 2.

#### **NUR 415 Concepts in Community Health**

This course introduces public health principles basic to improving the health of populations and to the practice of community health nursing. The epidemiological process is stressed in surveying current major health issues. Emphasis is on diverse groups in the community at national, regional, and local levels.

Cr 2.

#### **NUR 416 Community Health Nursing Lab**

This course is designed to provide clinical experience in a variety of community settings. The emphasis is on application of concepts of community health nursing. (Concurrent with Concepts in Community Health)

Cr 2.

#### **NUR 450 Nursing III Lab**

In this course the student utilizes knowledge of theory and research findings in caring for people with long-term alterations in health. The application of the nursing process continues to be emphasized. This experience provides the student with the opportunity to care for culturally diverse individuals, families, and groups in a variety of health care facilities. The

nurse's role in collaboration and coordination is introduced. Students must be enrolled in NUR 400 concurrently.

Cr 4.

#### **NUR 451 MS Psych Clinical Option**

In this course the student utilizes knowledge of theory and research findings in caring for people with long-term alterations in mental health. The application of the nursing process continues to be emphasized. This experience provides the student with the opportunity to care for culturally diverse individuals, families, and groups in a mental health facility. The nurse's role in collaboration and coordination is introduced. This course is open only to non-nurses with degrees in other fields (second degree option).

Cr 2.

#### **NUR 452 MS Community Health Clinical Option**

In this course the student utilizes knowledge of theory and research findings in caring for people in the community with long-term alterations in health. The application of the nursing process continues to be emphasized. This experience provides the student with the opportunity to care for culturally diverse individuals, families, and groups in community health facilities. The nurse's role in collaboration and coordination is introduced. This course is open only to non-nurses with degrees in other fields (second degree option).

Cr 2.

#### **NUR 455 Nursing IV Lab**

In this course the student is expected to utilize the nursing process in caring for clients with complex health problems. This experience provides the student with an opportunity to care for culturally diverse individuals, families, and groups with a variety of settings. Must be taken concurrently with NUR 405. Prerequisite for RN students: NUR 304, NUR 309, NUR 302, NUR 352, NFS 252, and NUR 315.

Cr 4.

#### **NUR 456 Concepts in Community Health**

Introduces concepts and principles basic to the development and maintenance of community health nursing. The epidemiological process is stressed in surveying current major health issues. Emphasis is on groups in the community at national, regional, and local levels. Senior standing in the School of Nursing required.

Cr 3.

#### **NUR 470 Professional Issues**

This course explores contemporary issues in the profession of nursing and in the health care system. Using theories related to complex systems, leadership and change, students explore professional and ethical issues which affect the delivery of health care.

Cr 2.

#### **NUR 480 Concentrated Clinical Practicum**

This concentrated (7 week) clinical course is designed to promote the role transition from student to graduate nurse. The focus is on the development of the leadership and management skills utilized in the care of clients. During this final clinical experience the student, assigned to work with a nurse clinician, will synthesize knowledge and skills necessary for professional nursing practice.

Cr 2.

*Required Core Courses for  
Health Studies Minor*

**NUR 280 Holistic Health I**

This beginning-level 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, exercise, therapeutic massage, counseling, 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.

**NUR 281 Holistic Health II**

This advanced 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. Prerequisite: Holistic Health I or permission of instructor. Cr 3.

**DEPARTMENT OF RECREATION AND LEISURE STUDIES**

The Department of Recreation and Leisure Studies in the School of Nursing offers two degree programs for students interested in pursuing careers in therapeutic recreation. The associate degree program in therapeutic recreation consists of 60 credit hours. Upon completion of the degree requirements, the student may seek employment as a therapeutic recreation assistant or recreation generalist and is eligible for certification by the National Council for Therapeutic Recreation Certification.

The baccalaureate degree program in therapeutic recreation consists of 120 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.

In addition to the two degree programs, a wide variety of professional recreation and leisure courses, as well as fitness activity courses, is available. Students are encouraged to pursue recreation, leisure, and fitness course offerings as appropriate to their academic program.

The School of Nursing also offers a minor in health studies for students not majoring in nursing. See description in School of Nursing section of catalog.

*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, health, and personal suitability for practice as therapeutic recreation specialists or therapeutic recreation assistants.

A grade of D or F in a Department theory or clinical course will stop progression within the respective degree course sequence. A student who receives a grade of D or F in an Internship course, REC 295 or 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 skills, health, and personal suitability 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.

**Course Fees**

A course fee is assessed in Karate (REC 102) and Advanced First Aid and Emergency Care (REC 216).

*Associate Degree in Therapeutic Recreation*

The two-year program in therapeutic recreation consists of the following courses leading to the associate of science degree.

**General Foundation Courses**

Required: (16 cr)			Credits
ENG	100C	College Writing	3
BIO	100K	Biological Basis of Human Activity	3
BIO	102K	Biological Experiences	1
PSY	101J	General Psychology I	3
SWO	266	Concept of Self and the Handicapped Person	3
THE	170F	Public Speaking	3

Electives: (9 cr)	
Humanities	3
General (two courses)	6

#### Major Courses

##### Required: (23 cr)

REC 110	Introduction to Recreation & Leisure Services	3
REC 121	Introduction to Therapeutic Recreation Services	3
REC 125	Recreation Analysis & Adaptation	3
REC 232	Methods in Therapeutic Recreation Program Design	3
REC 241	Leadership and Supervision in Leisure Services	3
REC 294	Therapeutic Recreation Practice/Pre-Internship	2
REC 295	Internship	6

*Note:* Students must obtain Red Cross CPR and Advanced First Aid certificates before taking Internship. This can be done by taking REC 216 or by taking courses offered by the Red Cross.

##### Recreation Leadership Electives: (6 cr) Choose two:

REC 219	Lifetime Physical Fitness & Wellness	3
REC 226	Lifetime Leisure Activities	3
REC 231	Arts and Crafts Programming and Leadership	3
REC 250	Adapted Aquatics	3
Three 1 credit Recreation & Leisure Activity courses		3

##### Leisure Studies/Therapeutic Recreation Electives: (3 cr)

REC 233	Environmental Recreation	3
REC 300	Leisure and Older Adults	3
REC 285	Perspectives on Animal Facilitated Therapy	3

##### General Recreation Electives: (3 cr)

Any recreation elective including courses listed in the Recreation Leadership & Leisure Studies elective categories that have not already been taken. No more than three 1 credit activity courses can be accepted for graduation credit.

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3  
Total credits 60

#### *Transfer into the B.S. Degree Program in Therapeutic Recreation from other USM Academic Programs*

Students in the associate degree program in therapeutic recreation who have a 2.5 cumulative average or a 3.0 average in selected courses may transfer to the four-year therapeutic recreation program providing space is available. Students interested in this option should meet with their advisor and then apply in writing to the Baccalaureate Degree Program Coordinator for transfer.

Students enrolled in other programs of study must meet with the appropriate therapeutic recreation coordinator to discuss transfer requirements. Such students will be required to provide a copy of their academic transcripts and to explain their reasons for wanting to transfer. Acceptance into the program is dependent on the student's academic performance, reasons for transfer, and space availability.

#### *Baccalaureate Degree Program in Therapeutic Recreation*

In satisfying Core curriculum requirements, students are urged to take PSY 101J and HRD 333J to fulfill their social sciences requirement. BIO 105K and 106K are recommended for the natural sciences requirement.

The four-year program in therapeutic recreation consists of, in addition to the Core curriculum requirements, the following courses leading to the bachelor of science degree.

##### Required recreation courses (32 cr)

		Credits
REC 110	Introduction to Recreation & Leisure Services	3
REC 121	Introduction to Therapeutic Recreation Services	3
REC 125	Recreation Analysis and Adaptation	3
REC 232	Methods in Therapeutic Recreation Program Design	3
REC 241	Leadership and Supervision in Leisure Services	3
REC 382	Therapeutic Recreation Interventions & Protocols	3
REC 494	Therapeutic Recreation Practice/Pre-Internship	2
REC 495	Internship	12

*Note:* Students must obtain Red Cross CPR and Advanced First Aid certificates before taking Internship. This can be done by taking REC 216 or by taking courses offered by the Red Cross.

REC 498	Management & Supervision in Therapeutic Recreation	3
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##### Leisure studies electives (3 cr)

REC 300	Leisure and Older Adults	3
REC 314	Leisure Education and Counseling	3
REC 372	Issues in Recreation and Leisure	3

Health/fitness electives (3 cr)			
REC	219	Lifetime Physical Fitness and Wellness	3
REC	280	Exercise Physiology	3
Recreation leadership/therapeutic recreation electives (6 cr)			
REC	226	Lifetime Leisure Activities	3
REC	231	Arts and Crafts Programming and Leadership	3
REC	233	Environmental Recreation	3
REC	250	Adapted Aquatics	3
REC	285	Perspectives on Animal Facilitated Therapy	3
General recreation electives (7 cr)			
Any recreation electives including courses listed in the leisure studies, health/fitness and recreation leadership elective categories that have not already been taken. No more than four 1 credit recreation activity courses can be accepted for graduation credit.			
Required foundation courses (22.5 cr)			
THE	170F	Public Speaking	3
BIO	211	Human Anatomy and Physiology II	3
BIO	212	Practical Human Anatomy & Physiology	1.5
SWO	266	Concept of Self and the Handicapped Person	3
NUR	280	Holistic Health I	3
SWO	288	Substance Use and Abuse: Alcohol & Other Drugs	3
HRD	333J	Human Growth and Development	3
PSY	333	Psychopathology	3
General (non-major) electives (15 cr)			
			15
Total credits (with Core)			120

## REC 100 Recreation and Leisure Activities

### Instruction

Each 100-level course provides instruction in one of the following areas: REC 101 Tennis; REC 102 Karate; REC 103 Wallyball; REC 104 Racquetball; REC 106 Ballroom Dance; REC 107 Aerobics; REC 109 Weight Training. Cr 1 each.

## REC 110 Introduction to Recreation and Leisure Services

Concepts of leisure, play, time, and work are discussed. Leisure awareness and identifying barriers to leisure are covered. Students are encouraged to develop a recreative lifestyle attitude. Cr 3.

## REC 121 Introduction to Therapeutic Recreation Services

An overview of the therapeutic recreation including historical and philosophical foundations, service models, professional functions and service settings. A survey of diseases and disabilities with implications for service delivery will also be included. Prerequisite: REC 110 or instructor permission. Cr 3.

## REC 125 Recreation Analysis and Adaptation

This course will examine the physical, emotional, and psycho-social domains that underlie human activity as well as methods that can be used to analyze the therapeutic potential of recreational activities. The role of leisure-oriented assistive technology will be discussed and a variety of activity and equipment adaptations will be examined. Prerequisite: REC 110 or instructor permission. Cr 3.

## REC 215 Travel Concepts for Life & Leisure

This course will address many issues associated with travel in today's society. Planning a trip, seeking advice, obtaining reservations, securing required docu-

ments, investigating costs, evaluating vacation packages, and discovering the various types of travel opportunities throughout the world. This course will guide you through the travel experience from the initial inquiry to the time you arrive back home. Cr 3.

## REC 216 Advanced First Aid and Emergency Care

This course will cover the topics prescribed by the American Red Cross in their advanced first aid course, including respiratory and cardiac emergencies, wounds, poisoning, sudden illness, burns and other topics. Successful completion of the course requirements will lead to Advanced First Aid and CPR certification from the American Red Cross. Cr 3.

## REC 217 Basic Sailing & Seamanship

An intensive study of the theoretical and practical elements involved in coastal sailing. Emphasis is on USCG safety regulations, seamanship, navigation, and sail handling. Cr 3.

## REC 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 lecture/discussion and in-class laboratory evaluations. Cr 3.

## REC 226 Lifetime Leisure Activities

Students will learn a variety of recreation activities through participation. Classroom sessions cover the rules and techniques of the sports as well as efficiency of movement. Cr 3.

### **REC 231 Arts and Crafts Programming and Leadership**

Students will learn about the therapeutic benefits of art and craft activities and how to plan, adapt, organize, and lead programs and activities. The course will require students to participate in a variety of craft activities including leatherwork, weaving, macramé, sand painting, and other appropriate projects. Prerequisite: REC 110 or instructor permission. Cr 3.

### **REC 232 Methods in Therapeutic Recreation Program Design**

Using a systems approach to therapeutic recreation program development, students will learn how to develop sequential therapeutic and instructional small group programs, special events and individualized treatment programs. Leisure and functional assessment, documentation and evaluation will also be examined. Prerequisites: REC 121 and REC 125. Cr 3.

### **REC 233 Environmental Recreation**

The roles of outdoor recreation activities, park systems and wilderness environments in modern society will be examined. Outdoor and environmental ethics as well as educational strategies will be studied and a variety of outdoor activities will be presented. Cr 3.

### **REC 241 Leadership and Supervision in Recreation**

This course provides the student with the basic knowledge necessary for effective leadership in recreation. Topics include identifying problem areas, establishing goals and objectives, selecting and implementing program design, understanding the evaluation process, and developing detailed technical skills essential for efficient use of time. Prerequisite: REC 110. Cr 3.

### **REC 250 Adapted Aquatics**

This course is designed for therapeutic recreation majors who are interested in organizing swimming programs for the handicapped and for experienced swimming instructors desiring to update their background in this field. It will offer all the necessary skills and techniques for teaching handicapped people how to swim and discover the joys of participating in water activities. Cr 3.

### **REC 277 Weight Training: An Approach to Strength**

Designed for both men and women, this course will examine various methods and routines of weight training for the development of muscular strength, endurance, cardiovascular benefits, and weight control. The course will consist of both theory and practical application. Cr 3.

### **REC 279 Health and Fitness for Older Adults**

Emphasis throughout this course is on the positive values and benefits of better health and fitness in the development of a high quality lifestyle for older persons. The "cutting edge" of the course is to identify and study all aspects of positive health and fitness as they relate to the aged. Class sessions are organized

so that students not only gain theoretical knowledge but also valuable laboratory experiences by working directly with older persons. Cr 3.

### **REC 280 Physiology of Exercise**

Students will gain an understanding of acute and chronic effects of exercise. Muscle physiology, respiration, cardiac function, circulation, energy metabolism, and application to training. Cr 3.

### **REC 281 Kinesiology**

This course provides students with the knowledge needed to analyze human motion. The primary focus of the course is on applied anatomy with basic neuromuscular and biomechanical principles also addressed. Cr 3.

### **REC 285 Perspectives on Animal Facilitated 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 A/V materials will be utilized to meet course objectives. Cr 3.

### **REC 294 Therapeutic Recreation Practice/Pre-Internship**

This course will prepare students for an extended internship experience. Students will develop individualized objectives for their internships and will complete all of the tasks necessary to apply for 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 2.

### **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. Internship lasts a full semester. Prerequisite: REC 294 taken immediately prior to Internship. Cr 6.

### **REC 300 Leisure and Older Adults**

This course provides an overview of the aging process with an emphasis on understanding the role of leisure in elderhood. Topics of study will include meanings of recreation and leisure, activity patterns and constraints, pre-retirement planning and the relationship of leisure to adjustment in retirement and elderhood. The course will also examine recreation program designs and strategies in community and institutional settings. Prerequisite: REC 110 or instructor permission. Cr 3.



**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. Prerequisite: REC 110 or permission of the instructor. Cr 3.

**REC 343 Perceptual-Motor Learning**

An introduction to motor development and motor learning including psychological theories and implications for skill instruction and research. Cr 3.

**REC 372 Issues in Recreation and Leisure**

The focus of this course is on the research and discussion of contemporary issues in recreation and leisure studies. Topics such as professionalism, legal issues, economic issues, service delivery, research trends, and resource availability will be discussed. Prerequisite: REC 110 or instructor permission. 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 intervention strategies and protocols used by therapeutic recreation specialists in settings such as head injury centers, nursing care facilities and psychiatric hospitals, etc. Students will be required to participate two hours per week in a "leisure buddy project" as part of the course requirements. Prerequisites: REC 232, PSY 333. Cr 3.

**REC 395 Practical Experience in Health/Fitness**

This course is designed for students who are pursuing the minor in health studies. Students will gain experience in such areas as health/fitness testing, health/fitness instruction and the organization of health/fitness programs. This course is designed to be taken after all other courses in the health studies minor have been completed. Cr 3.

**REC 398 Independent Study**

This course is intended to provide therapeutic recreation majors with an opportunity to pursue a project independently. Students should select a faculty advisor and develop a course proposal with this person. A final written paper is required. Prerequisite: junior or senior standing Cr 3.

**REC 480 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.

**REC 494 Therapeutic Recreation Practice/Pre-Internship**

This course will prepare students for an extended internship experience. Students will develop individualized objectives for their internships and 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 2.

**REC 495 Internship**

Students are required to work a minimum of 525 hours in an agency that provides recreation or 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 a faculty member. This course is to be taken the senior year. Prerequisites: Recreation core courses and instructor's permission. Cr 12.

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# LEWISTON-AUBURN COLLEGE

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*Dean:* Helen Greenwood, 51 Westminster Avenue, Lewiston

*Chair:* Druker; *Associate Professors:* Schaible, Whiteside; *Assistant Professors:* Druker, Hitchcock, Nealand, Robinson

The Lewiston-Auburn College of the University of Southern Maine is designed to serve as a resource to its community and to its region. 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. Just as the curriculum is designed to provide for each student the ability to change and grow as new opportunities present themselves, the College itself is designed so that it, too, can change with the times.

## *Transfer Policies*

Lewiston-Auburn College is composed of programs and courses from two different campuses of the University of Maine System, namely, University of Maine at Augusta and University of Southern Maine, each with its own academic policies. Therefore, it is important for students to be aware of the policies that apply to their particular situation. The implementation of the policies listed below is not automatic. It is the student's responsibility to ensure that transcripts are forwarded to the campus determining and awarding the transfer credit.

1. *Students Matriculated (accepted) into USM's baccalaureate programs.* Students matriculated into Management and Organizational Studies (MOS), Arts and Humanities (HUM), Natural and Applied Science (SCI), and Social and Behavioral Sciences (SBS) will receive full credit, grades, and quality points from UMA courses or from courses of any campus in the University of Maine System.
2. *RN Studies Program.* Grades, credits, and quality points of all USM courses will automatically be recorded on a USM transcript. Credits (not grades or quality points) will be transferred from UMA courses onto USM transcripts.
3. *Students Matriculated into UMA Programs.* Credit, grades, and quality points from USM courses will be recorded onto UMA's transcripts.
4. *Special Students (not Matriculated).* Students may register for any course of USM or UMA provided they meet prerequisites. USM courses, grades, and quality points will be recorded on a USM transcript and UMA courses, grades, and quality points will be recorded on UMA transcripts. When a student applies for admission to either campus, it is the student's responsibility to assure that the appropriate transcript(s) accompanies the application.
5. *Industrial Technology.* Grades, credits, and quality points of all USM courses will automatically be recorded on a USM transcript. Credits (not grades or quality points) will be transferred from UMA and CMTC courses onto USM transcripts.

The Lewiston-Auburn College offers: B.S. degree in management and organizational studies; B.A. degree in arts and humanities; B.A. degree in natural and applied science; B.A. degree in social and behavioral sciences; B.S. degree in nursing for students holding an R.N. (extended from USM's School of Nursing) and a B.S. degree in industrial technology (extended from USM's School of Applied Science).

## *B.S. Degree in Management and Organizational Studies*

The baccalaureate degree in management and organizational studies (MOS) combines a liberal arts program with a specialization for individuals who are currently or hope to be in managerial positions or who wish to understand how to work more effectively in an organization. This degree attempts to distinguish itself from traditional management or business programs by its emphasis on understanding and working with people, by its broad approach that incorporates the liberal arts tradition, by its interdisciplinary focus, by drawing on faculty from diverse backgrounds, and by its practical application of concepts and theories. This program is designed to prepare students for positions in the private or public sector, human service, and governmental organizations.

Students will take the comprehensive Core curriculum of the University of Southern Maine to provide a well-rounded liberal arts background. The core courses of the MOS major will introduce students to the theory and practice of organizational behavior and management.

A critical component of this degree program is the internship. With the assistance of a faculty mentor, students identify an organization within which they would like to put into practice the theories and skills gained from coursework.

In addition to completing these specific course requirements for the major, baccalaureate degree students must meet the proficiency requirements of the University of Southern Maine as well as the complete Core curriculum. To complete the baccalaureate degree, students must complete a minimum of 120 credit hours of coursework. Prerequisites to 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.

## *Requirements for the Major*

### **MOS Core (27 credits)**

MOS	300	Organizations and Their Management
MOS	304	Organizational Finance
MOS	320D	Research Methods and Statistics
MOS	340	Managing Organizational Change and Development
MOS	370E	Ethics and the Organization
MOS	385	Internship
MOS	400	Seminar in Organizations and Modern Society
MOS	410	Interpersonal Behavior in Organizations
MOS	420	Organizational Theory

### **Individual Concentration (18 credits)**

While taking the MOS Core, each student will work closely with a faculty advisor to identify six MOS electives (18 credits) that will complete the requirements for the major. The advisor will also assist the student in selecting the remaining courses necessary for the degree.

When choosing electives, students may wish to consider the following concentration areas:

#### **Organizational Management**

MOS	312	Human Resource Management
MOS	314	Employee Relations
MOS	316	Men, Women and Work
MOS	355	Organizations and the Humanities
MOS	386	Field Project in Organizational Studies
MOS	395	Using Computers in Organizations

#### **Public Affairs**

MOS	322	Introduction to Public Affairs
MOS	325	Management of State and Local Government
MOS	338	Health Care Policies
MOS	355	Organizations and the Humanities
MOS	386	Field Project in Organizational Studies
MOS	395	Using Computers in Organizations

#### **Human Services**

MOS	325	Management of State and Local Government
MOS	330	Applied Social Policy
MOS	335	Legal Issues in Health and Human Services
MOS	338	Health Care Policies
MOS	355	Organizations and the Humanities
MOS	386	Field Project in Organizational Studies
MOS	395	Using Computers in Organizations

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### **MOS 300 Organizations and their Management**

This course provides an overview of basic managerial processes: planning, organizing, controlling, decision making, and leadership. Classic and modern organizational theory is used to analyze managerial problems. Prerequisite: College Writing. Cr 3.

### **MOS 304 Organizational Finance**

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: fund accounting principles, financial forecasting, the use of spread sheets, and budgeting. Prerequisite: MOS 300 and one semester of accounting. Cr 3.

### **MOS 312 Human Resource Management**

Focus on the procedures and processes associated with the management of human resources within organizations. Topics include recruitment development, job analysis, personnel systems, and training. Cr 3.

### **MOS 314 Employee Relations**

Provides an understanding of legal, social, and eco-

nomics aspects of labor-management relations in the United States. Topics include a historical overview of labor law, grievance procedures, the negotiation process, equal opportunity, and personnel rules. Includes case studies and simulated bargaining exercises. Cr 3.

### **MOS/SBS 316 Men, Women, and Work**

Examines historical perspectives on work, the nature and meaning of work for men and women, similarities and differences between men and women that affect work, and the impact of work on men and women. Students will read from work in psychology, sociology, literature (fiction, drama, poetry), and management and organizational behavior. Cr 3.

### **MOS 320D\* Research Methods and Statistics**

An introduction to quantitative and qualitative research and evaluation methods which can be used in organizational planning and decision making. The course will cover topic areas related to determining an appropriate method of inquiry, the development of hypotheses or assumptions, as well as a brief overview of statistical methods. Prerequisite: college level mathematics. Cr 3.

**MOS 322 Introduction to Public Affairs**

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.

**MOS 325J Management of State and Local Government**

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.

**MOS 330\* Applied Social Policy**

A review of contemporary social policy alternatives and an examination of the macro- and micro-level social policymaking processes. Students complete an applied social policy project which might take the form of a policy paper, a grant proposal or written legislative testimony. Prerequisite: junior standing or permission of the instructor. Cr 3.

**MOS 335\* Legal Issues in Health and Human Services**

Examines current legal issues affecting the management and delivery of human services including the protection of the rights of both clients and workers. Cr 3.

**MOS 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.

**MOS 340 Managing Organizational Change and Development**

Explores the process of organizational change and how to manage change effectively. Topics covered include diagnosing the need for change, choosing the best method, implementing planned change, and dealing with resistance to change. Prerequisite: MOS 300 or permission of instructor. Cr 3.

**MOS 355 Organizations and the Humanities**

Examines organizations and organizational behavior in literature, film, drama, art, or music as well as traditional readings in organizational behavior. Cr 3.

**MOS 370E\* Ethics and the Organization**

Explores the ethical dimensions of private- and public-sector decision making. Draws on concepts and theories from ethics and other disciplines, especially the social sciences, and applies them to ethical issues and dilemmas faced by individuals and organizations. Cr 3.

**MOS 385 Internship in Management and Organizational Studies**

Prerequisites: MOS 300 and two 300/400-level MOS courses. Cr 3.

**MOS 386 Field Project in Organizational Studies**

Students will work in a team to apply organizational concepts and theories to a real-life organizational situation. Prerequisite: MOS 320. Cr 3.

**MOS 395 Using Computers in Organizations**

An introduction to the ways in which computers may be used by individuals and groups in organizations. Both computer hardware and software will be considered. Discussion will include the types of questions managers should consider in deciding on management information systems for their organizations. Cr 3.

**MOS 398 Independent Study**

Prerequisites: MOS 300 or junior standing and permission of instructor. Cr 3.

**MOS 399 Special Topics**

Topics offered may include studies of organizations and media, organizations and literature, analysis of organizations through film, etc. Prerequisite: MOS 300 or permission of instructor. Cr 3.

**MOS 400\* Senior Seminar**

The goal of this seminar is to allow students to integrate their previous coursework as they design and complete a capstone research and writing project. Students are asked to identify their own topic, information sources, and learning objectives with assistance from the instructor and their assigned student work group. Each student must demonstrate self-directed learning and the ability to write a formal paper. Prerequisite: senior standing or permission of the instructor. Cr 3.

**MOS 410 Interpersonal Behavior in Organizations**

Focuses on understanding individual, interpersonal, and group behavior in organizations with an emphasis on learning the knowledge and skills needed for success in organizations. Covers such topics as perception, personality, individual differences, motivation, communication, managing groups, leadership, power, and managing conflict. Prerequisite: MOS 300 or permission of instructor. Cr 3.

**MOS 420 Organizational Theory**

Examines the behavior of organizations from a macro perspective. Topics include organizational structure, culture, technology, the design of work, organizational change, the relationship of an organization to its external environment, and organizational effectiveness. Prerequisites: MOS 300 and senior standing. Cr 3.

\*These courses are cross-listed with the corresponding SBS course.

***B.A. Degree in Social and Behavioral Sciences***

This baccalaureate program provides students with an interdisciplinary approach to understanding human behavior. After completing the USM Core requirements, including basic courses in the social sciences, students

will select a combination of courses which balance in-depth study of principles of human development with exposure to topics with direct relevance to careers in human services and helping professions. As in other programs in the College, students also complete an internship in order to apply their knowledge to local and contemporary situations.

- Prerequisite Courses (12 credits)
- Introduction to Sociology
  - Introduction to Psychology I & II
  - Cultural Anthropology

*Note:* These courses may also be used to satisfy Core curriculum requirements.

- Requirements for the Major (21 credits)
- |     |      |                                 |
|-----|------|---------------------------------|
| HRD | 333J | Human Growth and Development    |
| SBS | 300  | Deviance and Social Control     |
| SBS | 320D | Research Methods and Statistics |
| SBS | 330  | Applied Social Policy           |
| SBS | 370E | Ethics and The Organization     |
| SBS | 385  | Internship                      |
| SBS | 400  | Senior Seminar                  |

Electives (18 credits)

Students will complete at least 6 of the following courses, selecting a minimum of two courses from each category:

*Fundamentals*

- |     |     |                                   |
|-----|-----|-----------------------------------|
| SBS | 305 | Child Development                 |
| SBS | 306 | Adolescence                       |
| SBS | 307 | Midlife and Adult Development     |
| SBS | 309 | Human Genetics                    |
| SBS | 340 | The Family                        |
| SBS | 342 | Gerontology                       |
| SBS | 360 | Culture, Behavior and Personality |

*Topics*

- |     |     |   |
|-----|-----|---|
| SBS | 301 | Abnormal Psychology                       |
| SBS | 308 | Behavior, Health and Society              |
| SBS | 311 | Mental Health                             |
| SBS | 316 | Men, Women, and Work                      |
| SBS | 335 | Legal Issues in Health and Human Services |
| SBS | 338 | Health Care Policies                      |
| SBS | 343 | Substance Abuse                           |
| SBS | 344 | Violence and Aggression                   |
| SBS | 350 | Deviations of Childhood                   |

The remaining electives may be selected from courses listed above or from other courses offered by Lewiston-Auburn College or by other accredited institutions. Selection of courses from the fields of anthropology, criminology, economics, political science, psychology and social work is recommended. Students may also work with their advisor to plan their own program focusing on future career or graduate school plans.

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**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 301 Abnormal Psychology**  
 An introduction to the etiology and classification of maladaptive behavior. The psychological, sociological, and biological bases for mental illness will be discussed. Cr 3.

**SBS 305 Child Development**  
 An examination of the development and behavior of children from conception through middle childhood, and of the theoretical frameworks and research upon which current knowledge in the field is based. Student projects will apply this material to such topics such as poverty, effects of abuse, and educational interventions. 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 major physical, personality, and social processes experienced by midlife adults in our society. Stage models of adult development will be critically examined, as will such topics as the effects of changing societal contexts on the experience of midlife. Cr 3.

**SBS 308 Behavior, Health and Society**  
 A survey of the psychological and sociological dimensions of health and wellness. Consideration will be given to contemporary health issues such as stress,

the sick role, health promotion, risk taking, and the relationship between socioeconomic status and health.

Cr 3.

### **SBS 309 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. Cr 3.

### **SBS 310 Human Genetics Lab**

This laboratory course will provide students with practical experience to supplement SBS 309. Cr 1.

### **SBS 311 Mental Health**

This course will explore the historical, biological, sociological, and psychological bases of the nature of mental health and mental illness as well as examine the treatment of mental illness. Particular attention will be given to the cultural definitions of mental illness. Cr 3.

### **SBS 312 Foundations in Criminology**

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 320D\* Research Methods and Statistics**

An introduction to quantitative and qualitative research and statistical methods which can be used in the social and behavioral sciences. The course will cover topic areas related to determining an appropriate method of inquiry, the development of hypotheses or assumptions, as well as a brief overview of statistical methods. Equivalent to MOS 320. Prerequisite: college level mathematics. Cr 3.

### **SBS 330\* Applied Social Policy**

A review of contemporary social policy alternatives and an examination of the macro- and micro-level social policy making processes. Students complete an applied social policy project which might take the form of a policy paper, a grant proposal or written legislative testimony. Prerequisite: junior standing or permission of the instructor. Cr 3.

### **SBS 335\* Legal Issues in Health and Human Services**

Examines current legal issues affecting the management and delivery of human services including the protection of the rights of both clients and workers. Cr 3.

### **SBS 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 340 The Family**

A contemporary approach to the study of the family. Includes an examination of family structures, familial relationships, and the impact of social and

psychological change on these structures and relationships. Cr 3.

### **SBS 342 Gerontology**

A review of current theories and issues related to aging. Consideration will be given to physical, psychological, and sociological aspects of aging as well as cultural perspectives regarding the elderly. Cr 3.

### **SBS 343 Substance Abuse**

This course will consider the interplay of drugs, individuals, social context, and public policy in different models of what constitutes substance abuse and appropriate intervention strategies. Topics to be considered include the disease model of addictions, wars on drugs, and community approaches to substance abuse prevention. Cr 3.

### **SBS 344 Violence and Aggression**

This course reviews violence and aggression as they are studied in psychological and sociological works, in fiction, drama, and poetry, and in writings on anthropology and religion. Topics include the etiology of violence and aggression, gender differences, domestic and sexual violence, and the cultural sanctioning of violent and aggressive behaviors. Cr 3.

### **SBS 350 Introduction to Deviations of Childhood**

Readings and discussion of the etiology and manifestation of deviant patterns of behavior in children. Topic areas will be considered from both a psychological and sociological perspective. Cr 3.

### **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, emotional expression and gender roles are among topics to be considered. Varied theoretical models of the relationship between individual development and culture will be reviewed. Cr 3.

### **SBS 370E\* Ethics and the Organization**

Explores the ethical dimensions of private- and public-sector decision making. Draws on concepts and theories from ethics and other disciplines, especially the social sciences, and applies them to ethical issues and dilemmas faced by individuals and organizations. Cr 3.

### **SBS 385 Internship**

Prerequisites: SBS 300 and two 300/400-level SBS courses. Cr 3.

### **SBS 398 Independent Study**

Prerequisite: junior standing and permission of instructor. Cr 3.

### **SBS 399 Special Topics**

Cr 3.

### **SBS 400\* Senior Seminar**

The goal of this seminar is to allow students to integrate their previous coursework as they design and complete a capstone research and writing project. Students are asked to identify their own topic, infor-

mation sources and learning objectives with assistance from the instructor and their assigned student work group. Each student must demonstrate self-directed learning and the ability to write a formal paper. Prerequisite: senior standing or permission of the instructor.
 Cr 3.

\*These courses are cross-listed with the corresponding MOS courses.

**B.A. Degree in Arts and Humanities**

This program is for students who enjoy the arts and humanities for their value in providing aesthetic pleasure and a meaningful understanding of life and for those who wish to study the complex issues of today’s world in the context of our cultural history. In studying the arts and humanities, students gain an insight into who we are as a pluralistic society and how we can live equitably among ourselves. The program stresses the importance not only of understanding and respecting tradition, but also of modifying or transforming it in order to meet the needs of a changing world. Coursework will explore a variety of historical and contemporary issues from perspectives that cross disciplinary and cultural boundaries. Because this degree is based on the conviction that a democratic society demands citizens capable of critical thought, articulate expression, and cooperative endeavor, all academic courses within the major strongly encourage student thought and expression in small-group and class discussions and in written work. A number of courses are team-taught by faculty and appropriate instructors from the community.

Total degree credits to be earned: 120.  
 Students are responsible for completing USM’s Core curriculum.

Prerequisite Courses (27 credits)	Credits
Art History and Appreciation I and II	6
Western Civilization or World History	6
Foreign Language	12
Introduction to Literature	3

*Note:* These courses may also be used to satisfy Core curriculum requirements. Satisfactory completion of College Writing is a prerequisite to all courses in this major.

Program Requirements (24 credits)	
General	
HUM 146/147 American Studies	6
HUM 302 Seminar: Live Performances, Exhibits and Lectures	3
HUM 308 Texts and Meanings	3

**Interdisciplinary Courses**

Students must select 4 interdisciplinary courses. Courses may vary from year to year, but typical offerings are listed below.

HUM 310	Franco-American Studies
HUM 318	Photography and Poetry: Two Ways of Speaking
HUM 323	Life and Literature after Darwin
HUM 325	Women of Other Cultures
HUM 330	Labor, Literature and the Arts
HUM 332	Religion in Culture and Politics
HUM 342	Voices of Minorities
HUM 355	Organizations and the Humanities
SBS 316	Men, Women, and Work
SBS 344	Violence and Aggression

**Electives**

Eighteen credit hours must be satisfied by courses with prefixes of ENG, HUM, ART, MUS, PHI, HTY or by additional interdisciplinary courses. The remaining credit hours may be selected from any courses offered at Lewiston-Auburn College or from other accredited institutions. MOS 300 Organizations and Their Management is strongly recommended.

<b>HUM 146 American Studies I</b> Drawing on political and economic history, literature and the arts, this course will study the 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.	tury up to modern times.                     Cr 3.
<b>HUM 147 American Studies II</b> This course is a continuation of HUM 146, covering the period extending from the late nineteenth cen-	<b>HUM 302 Seminar: Live Performances, Exhibits and Lectures</b> During the semester students will attend several live performances, exhibits, or lectures and discuss them in class.                     Cr 3.
	<b>HUM 305 Creative Writing: Poetry</b> This course is designed to help students become more

familiar and confident with writing and understanding poetry. Cr 3.

**HUM 310 Franco-American Studies**

This course studies the history, culture, and literature of the Franco-Americans. Cr 3.

**HUM 308 Texts and Meanings**

Using literature, art, film, and theoretical writings, this course will explore the problematic process of determining a text's meaning. Central topics include recent ways of defining a text, the relationship of reader to text, the "death" of the author, the meaning of translation, the interpretive community, historical consciousness, and the roles played by power, authority, and tradition. Cr 3.

**HUM 318 Photography and Poetry:**

**Two Ways of Speaking**

Designed for students interested in photography and/or poetry, this course will look at differences and similarities in the ways photographs and poems create meaning. Students will be asked to choose one of these forms of expression as a means of interpreting one or more examples of the other. Cr 3.

**HUM 323 Life and Literature after Darwin**

A study of biological evolution and its reflections in literature. Readings on Darwin's theory of evolution in its original and modern forms, followed by the 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 325 Women of Other Cultures**

This course examines the range of women's roles in

society. Sexual stratification systems in a variety of societies will be considered. Many of the societies considered will be contemporary, some historical. Cr 3.

**HUM 330 Labor, Literature, and the Arts**

This course explores the ways in which working people's lives have been depicted through fiction, poetry, visual arts, and/or music. It also examines the unique impact of labor unions, rural workers' organizations, and other labor support associations on the cultural life of North America. 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 342 Voice of Minorities**

Through a study of literature, music, art, and film produced by minorities in the United States, students will explore the problems and concerns of these minority populations as well as their contributions to our culture. Cr 3.

**HUM 355 Organizations and the Humanities**

Examines organizations and organizational behavior in literature, film, drama, art or music as well as traditional readings in organizational behavior. Cr 3.

**HUM 385 Internship**

Cr 3.

**HUM 398 Independent Study**

Cr 3.

**HUM 400 Senior Seminar**

A variety of topics relating to the arts and humanities are discussed. Students write an academic research paper or essays. Cr 3.

**B.A. Degree in Natural and Applied Science**

This program provides students with a liberal arts education emphasizing basic sciences and the biology of illness. This program is designed to provide students with a sufficient understanding of human biology to enable them to make wise health care decisions, to pursue careers in health education, to better communicate with health care providers, and/or to continue their education in health-related fields.

The total number of credits to be earned in this program is 120. Students must complete USM's Core curriculum.

*Prerequisite Courses (24 credits)*

	<i>Credits</i>
Inorganic Chemistry and Lab	4
Organic and Biological Chemistry and Lab	4
General Psychology I and II	6
Introduction to Sociology	3
Statistics	3
General Biology and Lab	4

*Note:* These courses may also be used to satisfy Core requirements.

*Major Requirements (30 credits)*

	<i>Credits</i>
Human Anatomy and Physiology	4
Microbiology	4
SCI 309/310 Human Genetics and Lab	4
SCI 380/381 Pathophysiology I and II	6
SCI 400 Senior Seminar	3
HRD 333J Human Growth and Development	3



SBS	335	Legal Issues in Health and Human Services	3
SBS	342	Gerontology	3

### Electives

At least 12 credits to be selected from the list below and the remainder to be selected from courses listed below or offered by Lewiston-Auburn College or other accredited institutions. MOS 300 Organizations and Their Management is strongly recommended.

SCI	315	Holistic Health/Alternative Healing
SCI	330	General Zoology
SCI	320/321	Human Embryology and Lab
SCI	340	Applied Botany
SBS	308	Behavior, Health and Society
SBS	338	Health Care Policies
SBS	343	Substance Abuse
NUR	302	Pharmacology
NFS	252	Nutrition
ANT	201	Human Origins
ITP	320	Occupational Safety and Health

#### SCI 309 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. Prerequisite: a course in biology of psychology. Cr 3.

#### SCI 310 Genetics Laboratory

The laboratory in human genetics is designed to provide practical experience in genetics in order to better understand the mechanism of heredity. SCI 309 must be taken concurrently. Cr 1.

#### SCI 315 Holistic Health/Alternative Healing

This course will present discussions of the role of exercise, diet, and fitness in the well-being of humans. It will also introduce students to alternative methods of healing such as meditation, reflexology, biofeedback, and acupuncture. Cr 3.

#### SCI 320 Human Embryology

This course discusses how the human embryo is formed and its development and growth from conception to birth. Prerequisite: a course in biology or psychology. Cr 3.

#### SCI 321 Embryology Laboratory

By examining both preserved and living embryos, students will gain an understanding of early development. SCI 320 must be taken concurrently. Cr 3.

#### SCI 333 Zoology

Through an integrated lecture/laboratory approach this course will present a comparative study of animals. Topics included are habitat, reproduction, movement and support, gas exchange, osmotic balance, develop-

ment, and nutrition. Several field trips will be taken. Prerequisite: a general biology course. 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. Lectures and laboratories are integrated. Emphasis will be on higher plants. Prerequisite: a general biology course. 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 3.

#### SCI 380 Pathophysiology I

The biology of noninfectious illnesses pertaining to the digestive, cardiovascular, skeletal, muscular, nervous, reproductive and endocrine systems will be studied. Prerequisite: a course in anatomy and physiology. Cr 3.

#### SCI 381 Pathophysiology II

This course will study the immune system, the biology of cancer, the nature of blood and blood forming systems, epidemiology, and the effect of a number of infectious agents on human systems. Prerequisite: SCI 380. Cr 3.

#### SCI 385 Internship

Prerequisite: SCI 380/381. Cr 3.

#### SCI 400 Senior Seminar

A variety of health-related issues will be discussed. Students will be required to write a formal academic research paper. Prerequisite: SCI 380/381 is recommended. Cr 3.

### B.S. in Nursing

Students who are R.N.s are able to complete the B.S.N. degree at Lewiston-Auburn College. For more information about this R.N. Studies program, contact Brenda Webster in the School of Nursing (207-780-4802) or Kathy Demers at Lewiston-Auburn College (207-783-4860).

### B.S. Degree in Industrial Technology

Option II of the B.S. degree in industrial technology is extended from USM's School of Applied Science to Lewiston-Auburn College. For more information, contact Kathy Demers at Lewiston-Auburn College (207-783-4860) or Bill Ford at the School of Applied Science (207-780-5325). This program links very closely with academic programs at Central Maine Technical College. Students must complete their technical requirements at Central Maine Technical College or other institution and may receive credit for technical experience.

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# DIVISION OF OFF-CAMPUS INSTRUCTION AND ACADEMIC SUPPORT

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*Executive Director:* John W. Bay

*Director, Off-Campus Programs and Instructional Delivery:* Kathleen H. Bouchard; *Director, Learning Assistance:* Robert E. Lemelin; *Coordinator of Developmental Math:* Bruce A. Allen; *Coordinator, Academic Support Center:* Frank K. Carner; *Coordinator/Academic Counselor, First Year Alternative Experiences:* Toni Passerman; *Coordinator for Academic Support Services for Students with Disabilities:* Joyce Branaman; *Program/Production Coordinator, USM Television:* Caroline Hendry; *Faculty Liaison:* Ann Clarey

The Division of Off-Campus Instruction and Academic Support, a unit of the University established in 1973, has responsibility for offering courses and administering associate degree programs at a number of off-campus locations in southern Maine as well as delivering courses via television. The Division sponsors off-campus centers in Saco-Biddeford and Sanford. Each of these centers offers comprehensive academic advising and other student services to assist students who wish to take courses or to pursue associate degree programs. Also available are selected courses that meet the requirements of some baccalaureate programs.

## ***Instructional Television (ITV)***

Certain courses are offered "live" on color television through a system that simultaneously connects classrooms at the Portland campus and at the off-campus centers in Sanford and Saco-Biddeford. Students at each location are able to hear and see the class in session and, using a specially developed microphone system, they are able to talk to the instructor during class. Information about the ITV system may be obtained by contacting the Division.

## ***Learning Assistance***

Developmental courses provide students with instruction to help them achieve proficiency in writing (ENG 009), in mathematics (MAT 009), and in critical reading skills (RDG 009). The Academic Support Center offers tutoring in writing, math, study skills, and word processing. In addition, the Center makes self-instructional materials available. The Academic Support for Students with Disabilities Office works with students to foster alternative learning strategies. First Year Alternative Experience is a pilot program that integrates developmental coursework, tutoring, and academic counseling for a select group of students.

## ***Freshman Seminar (FRS100)***

The Division is responsible for the planning and delivery of this course which assists new students with the transition into higher education. The course helps provide a strong foundation on which to build an academic career. The course is required of all students in the First Year Alternative Experience.

## ***Off-Campus Centers***

The Division of Off-Campus Instruction and Academic Support offers courses at two off-campus centers, Saco-Biddeford and Sanford. Each center offers geographical convenience and personal attention. A comprehensive array of services, which includes registration for and information about all campus programs, as well as admissions, financial, and academic advising, is offered. For more information about programs, financial aid, or other academic advising services contact: Saco-Biddeford Center, Mill 2, Saco Island, Saco, Maine 04072, (207) 780-4492 or 282-4111, or Sanford Center, 72 Pleasant Street, Springvale, Maine 04083, (207) 324-6012.

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### **ENG 009A Developmental Writing**

This course is designed to help students who need to develop proficiency to enter ENG 100C, College Writing. ENG 009 is taken on a pass/fail basis. Credit earned in ENG 009 does not apply or accumulate toward any degree program at the University of Southern Maine.

Cr 3.

### **ABU 119 Business Communication**

This course introduces students to business communication strategies and provides practice in the application of those strategies using the case method. Students compose business letters, short and long reports, and employment writing. (Formerly ENG 019)

Cr 3.

### **FRS 100 Freshman Seminar**

This course is designed to enhance a student's academic success by providing an introduction to the many facets of the University. Selected topics include critical reading and writing, critical thinking, enhancing study and communication skills, and pluralism and diversity. A research topic is explored, and the class format allows for a great deal of faculty/student interaction.

Cr 3.

### **FRS 101 Introduction to the Academic Experience I**

This course provides students with the tools to help assure success in college. The course exposes students to practical skills and to new and different

perspectives on learning. Required of all students in the First Year Alternative Experience. Cr 3.

### **FRS 102 Introduction to the Academic Experience II**

A continuation of FRS 101, this course expands upon critical thinking, reading, and writing skills by exposing students to a breadth of readings from the humanities and social sciences. Students study a variety of models of inquiry to help them prepare for interdisciplinary education at the University. Required of all students in the First Year Alternative Experience.

Cr 3.

### **MAT 009 Developmental Mathematics**

A review of fundamental topics of arithmetic needed prior to a study of algebra. Topics covered include: basic operations with fractions, decimals and integers; introduction to ratios and proportions; applications of percent; notations involving exponents, average and square roots; and solving word problems and equations. Credit earned in MAT 009 does not apply or accumulate toward any degree program at the University of Southern Maine.

Cr 3.

### **MAT 010 Elementary Algebra**

The first course of a two-course sequence designed

for students who are deficient in high school algebra. Topics covered include basic operations with integers and rational numbers, equations with variables, algebra word problems, operations with polynomials and algebraic fractions (including factoring), and operations with exponential and radical expressions. Prerequisite: MAT 009 or its equivalent. Associate degree credit only.

Cr 3.

### **MAT 011B Intermediate Algebra**

A continuation of MAT 010. Topics include graphing linear equations in two variables, quadratic equations, graphs of functions and relations, conic sections, solutions to systems of equations, solutions for inequalities, and exponential and logarithmic functions. Prerequisite: one year of high school algebra or MAT 010. Associate degree credit only.

Cr 3.

### **RDG 009 Critical Reading Skills**

This course provides opportunities for students to develop the critical reading skills needed at the college level. Students must demonstrate skills' mastery at the end of the course. This course is taken on a pass/fail basis. Credit earned in RDG 009 does not apply to or accumulate for any degree program at the University of Southern Maine.

Cr 3.

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# DEPARTMENT OF MILITARY SCIENCE

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**Army ROTC** Army ROTC offers students of the University an opportunity to earn a commission in the United States Army while pursuing a bachelor's degree. The program is sponsored and offered through the Army ROTC Battalion at the University of New Hampshire, Durham, New Hampshire. Students register for military science courses as part of their regular undergraduate curriculum. For more information call the Department of Military Science at (207) 780-5255, or call the UNH Battalion (collect) at (603) 862-1078.

The Army ROTC program consists of a two-year (freshman and sophomore) basic course and a two-year (junior and senior) advanced course. Students who have completed previous military training (veterans, military academies, Junior ROTC, etc.) may be granted credit for all or a portion of the Basic Course as determined by the professor of military science. ROTC Basic Camp may be taken between the sophomore and junior years in lieu of the Basic Course as outlined in the course descriptions.

Students who successfully complete or receive credit for the Basic Course may apply to the professor of military science for admission to the Advanced course. If admitted the student receives \$100 per month during his/her junior and senior years. Students who successfully complete the Advanced Course may be offered a commission as a second lieutenant in the United States Army, and can be appointed in the National Guard, the Army reserve, or the active Army.

**Scholarships** The Reserve Officer Training Corps offers scholarships in four- and three-year awards which pay tuition, education fees, lab fees, and a fixed amount for textbooks, supplies, and equipment. In addition, winners receive an allowance of up to \$1,000 each school year the scholarship is in effect.

The ROTC Scholarship Program is highly competitive. The selection procedure includes an evaluation of academic potential and performance, physical condition, degree of demonstrated motivation towards officership in the Army, and the results of a personal interview with the professor of Military Science.

For more information, contact the Department of Military Science, University of Southern Maine, (207) 780-5255, or the Department of Military Science at the University of New Hampshire, (603) 862-1078.

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## *The Basic Course*

The Basic Course is a 6-credit curriculum which allows students an opportunity to experience ROTC leadership training without making a commitment. This phase involves two years of fundamental and practical leadership training; upon successful completion, cadets qualify for entry into the Advanced Course. Cadets can also qualify by completing a six-week Basic Camp at Fort Knox, Kentucky. Prerequisites: full-time student, medically qualified.

### **MTL 000 Leadership Laboratory**

Leadership Lab is a component of all Military Science courses and constitutes a graded portion of each course. Emphasis is on practical application of leadership skills taught in the classroom. Schedule arranged with instructor. Cr 0.

### **MIS 111 Fundamentals of Leadership**

A practical course designed to provide a background study of concepts and skills essential to the development of leadership. This course strongly emphasizes leadership development, master student skills, interpersonal communication, team-building, and problem solving. In addition to the classroom training there is a practical application during leadership laboratory which provides experience through participation. This course meets the first semester freshman requirement for the Reserve Officer Training Corps Basic Course. Cr 1.

**MIS 112 Leadership Fundamentals and ROTC**  
A continuation of the elements studied in the Fun-

damentals of Leadership (MIS 111). This course narrows its focus to the role of the officers and the non-commissioned officers in the Army. (Development of military customs, courtesies and tradition, organization of the Army, and role of the Army.) This course integrates basic leadership principles as exemplified by the U.S. Army. In addition to the classroom training there is a practical application during leadership lab. This course meets the second semester freshman requirement for the Reserve Officer Training Corps Basic Course. Prerequisites: MIS 111; permission of instructor. Cr 1.

### **MIS 221 Practical Skills in Leadership**

This course provides students with a basic knowledge of land navigation, first aid, supervisory skills and techniques for effective leadership, and supervision in a military environment. Land navigation focuses on developing practical skills in reading and interpreting maps, marginal information, map grid coordinates, scale and distance, direction, elevation, identifying terrain features and intersection/resection. These skills will be applied in a cross-country navigation exercise. First aid will cover topics in respiratory emergencies, wounds, burns, fractures, and other topics. Students will be required to attend leadership labs which will focus on practical application of skills taught in the classroom. Prerequisites: MIS 111, 112, permission of instructor. Cr 2.

### **MIS 223 Demonstrated Skills in Leadership**

This course is a follow-up to MIS 221 and is designed to provide the student with an opportunity to perform numerous leadership functions. The framework

for these demonstrated leadership skills are primarily within a military environment. The tasks include such actions as writing an operations order, establishing and conducting a physical fitness program, presenting a briefing, and similar action-oriented skills. This course lays the ground for transition into the ROTC advance course. Cr 2.

### **MIS 229 Leadership in Action, ROTC Camp Challenge**

A six-week leadership summer course conducted at Fort Knox, Kentucky. The environment is rigorous and is a definite leadership challenge. Participants are able to compete for two-year ROTC scholarships while at Camp Challenge. These scholarships are extremely competitive in nature. The Army provides travel and a fixed amount of pay for the six-week period. There are normally three different cycles to choose from during the summer. The student incurs no military obligation for participating in this training, which qualifies the applicant to enter the Advanced ROTC course in the fall. Camp Challenge applicants are accepted during the spring semester, and must apply for enrollment to the professor of Military Science. Selection for attendance is based on qualifications and merit. Prerequisites: Same as for entry into MIS III. Cr 6.

### ***The Advanced Course***

Upon successful completion of the Basic Course or receiving advanced placement status approved by the professor of Military Science, students who are eligible to contract may enter the pre-commissioning phase of their military leadership training. The courses listed below are required for completion of the Advanced Course and commissioning as a second lieutenant.

### **MIS 331 Leadership Doctrine and Theory**

Leadership Doctrine and Theory is the collection of teaching and principles applied to the practice of leadership. It provides the basis and framework for all leader actions. Attention will be given to important principles of leadership, including the BE-KNOW-DO framework; teaching and counseling; the communication process; team development; and factors of leadership. The course encompasses weekly classroom instruction, Leadership Lab, and one weekend Field Training Exercise. Prerequisites: Basic Course, MIS 229 or Active Duty experience, permission of professor of Military Science. Cr 3.

### **MIS 332 Leadership Application**

This course is an intensive preparation for Advanced Camp. It develops knowledge in small unit tactics, land navigation, and physical conditioning. The accumulated leadership skills and knowledge are employed and evaluated in practical exercises throughout the course curriculum. The course encompasses classroom instruction and physical conditioning, Leadership Lab, weekend Field Training Exercise, and a mini-camp prior to attendance of Advanced Camp. Prerequisites: MIS 331, permission of instructor. Cr 3.

### **MIS 339 ROTC Advanced Camp**

Cadets are placed in the most challenging field training environment during ROTC which provides practical experiences in a stressful environment, and opportunities for cadets to develop and demonstrate their leadership capabilities. Advanced Camp is six weeks at Fort Bragg, North Carolina. Pay and travel costs are defrayed by the Army. Prerequisites: MIS 332, permission of professor of Military Science (pass/fail). Cr 0.

### **MIS 340 Ranger School**

A leadership course for small unit leaders in which the student is exposed to conditions and situations which closely approximate and often exceed those he will encounter in combat. The Ranger course is two months in length, with an average of 19 hours of training each day, 7 days a week. It is divided into four phases of training with each phase being conducted at a geographically different location. Students who graduate are awarded the coveted Ranger tab. Ranger School is in lieu of Advanced Camp. Prerequisites: MIS 332, permission of professor of Military Science (pass/fail). Cr 0.

### **MIS 341 Nurse Summer Training Program**

The Nurse Summer Training Program (NSTP) provides qualified cadets, majoring in nursing, opportunities to develop and practice leadership skills in both field and clinical environments. Cadets spend 2 weeks at an Advanced Camp patterned after MIS 339 and 5 weeks at selected Health Services Command Medical Treatment Facilities. Cadets work one-on-one with an Army Nurse Corps officer preceptor. NSTP is in lieu of MIS 339. Prerequisites: MIS 332, permission of professor of Military Science (pass/fail). Cr 0.

### **MIS 441 Advanced Leadership I: Military Management**

This course is designed to enhance the senior students leadership development and to prepare the cadet to transition to an Army officer. It will review management theory; personnel, logistics and training management systems; and military law. The pre-commissioning assessment of officership potential will continue. Student participation in leadership laboratory is required. Prerequisites: MIS 332, successful completion of advanced camp, and permission of instructor. Cr 3.

### **MIS 442 Advanced Leadership II: Small Unit Leadership Seminar**

This course is designed as a final preparation for cadets to assume the leadership responsibilities inherent in their commissions as second lieutenants, United States Army. It will review the organization and functions of the Department of Defense and the U.S. Army; threats to national security; small unit tactical operations; the ethics of leadership; training individual soldiers and platoons; professional writing and speaking; troop leading procedures; and personal planning and financial management. Student participation in leadership laboratory is required. Prerequisite: MIS 441. Cr 3.

### **MIS 499 Advanced Leadership III:**

#### **Independent Study**

This course is only open to contracted ROTC cadets. It is a concentrated program of research into a particular topic selected by the student, mentored by a faculty member and approved by the professor of Military Science. Cr 1-6.

#### **Special Courses**

Special courses are available to individuals in the ROTC program on a competitive and voluntary basis. Courses are offered during the summer months. Application packets need to be processed during the spring semester. All of the following courses require permission of the professor of Military Science.

#### **MIS 070 Airborne School**

A physically tough, three-week school to train and qualify cadets in military parachuting. Attendance

is competitive within the enrolled ROTC cadets. Cadets who graduate from the Fort Benning, Georgia, school are awarded the Army Parachute Badge (pass/fail). Cr 0.

#### **MIS 075 Air Assault School**

A mental and physical, 10-day school to train on the tactical utilization of Army helicopters and air transport procedures. Cadets are taught to rappel from helicopters to establish drop/pick-up zones, along with preparation of air transportable cargo. Cadets who graduate from the Fort Campbell, Kentucky, school are awarded the Army Air Assault Badge (pass/fail). Cr 0.

#### **MIS 080 Northern Warfare Training Center**

A three-week course conducted at Fort Greely, Alaska, which emphasizes military mountaineering skills and military operations in northern areas (pass/fail). Cr 0.

#### **Air Force ROTC**

Two-year and four-year Air Force Reserve Officer Training (AFROTC) programs are sponsored and offered by Detachment 475 located at the University of New Hampshire, Durham, New Hampshire.

The four-year program is open to freshmen or transfer students from an ROTC program at another college. This program allows "trying out" Air Force ROTC for up to two years without incurring any obligation unless the cadet is on an Air Force scholarship.

The two-year program is offered to students who have at least two years of undergraduate or graduate work remaining before entering the Air Force.

Entering freshmen may compete for four-year scholarships during their senior year of high school. Three-and-one-half year, three-year, two-and-one-half-year, and two-year scholarships covering all or part of tuition, certain fees, and an unlimited amount of books are also available. All scholarship recipients receive a \$100 per month subsistence allowance. All non-scholarship cadets receive \$100 per month subsistence allowance for the last two years of the program.

The first two years of the Air Force program require one hour of class and one-and-half hours of Leadership Lab per week. The remaining two years require three hours of class and one-and-half hours of Leadership Lab per week.

The following Air Force ROTC, Detachment 475 courses and labs are held on the Gorham campus, University of Southern Maine or the University of New Hampshire Campus in Durham:

AFL	000	Leadership Laboratory
AFL	112-113	The Air Force Today I & II, Freshman Year
AFL	341-342	The Development of Air Power I & II, Sophomore Year
AFL	471-472	Air Force Management and Leadership I & II, Junior Year
AFL	481	National Security Forces in Contemporary American Society, Senior Year
AFL	482-483	The Military Profession I & II, Senior Year

After qualifying for either ROTC program, the cadet must see the Registrar of the University of Southern Maine for the proper registration procedures. Students may enroll in the ROTC programs under the crosstown agreement at no extra cost.

For additional information regarding either of these programs the student should contact Air Force ROTC Detachment 475, University of New Hampshire, at (603) 862-1480.

*Leadership Laboratory* is required each semester of all Air Force ROTC students seeking commissions as second lieutenants in the U.S. Air Force upon graduation. Students taking Air Force ROTC courses for credit, but not seeking commissions, need not register for this lab.

**AFL 000 Leadership Laboratory**

Taken by all AFROTC cadets throughout enrollment in AFROTC. Command and staff leadership experiences in cadet corps. Air Force customs and courtesies, drill and ceremonies, career opportunities, and life and work of the junior officer. Student leadership potential developed in a practical, supervised laboratory. Field trips to Air Force installation.

Cr 0.

**AFL 112 The Air Force Today I**

Development, mission, and organization of the Air Force as an instrument of the U.S. national defense policy.

Cr 1.

**AFL 113 The Air Force Today II**

Major Air Force commands; roles of separate operating agencies; organization, systems, and operations of strategic defense; general-purpose aerospace support forces.

Cr 1.

**AFL 341 The Development of Air Power I**

The nature of warfare; development of air power from balloons and dirigibles through World War II.

Cr 1.

**AFL 342 The Development of Air Power II**

Development of air power from post-World War II through the peaceful use of air power in Berlin; the Cuban crisis; air war in Southeast Asia; and research and development of present and future aerospace vehicles.

Cr 1.

**AFL 471 Air Force Management and Leadership I**

An integrated management course emphasizing the individual as a manager in the Air Force. Motivation and behavior, leadership, communication, group dynamics, and decision making in a changing environment. Air Force case studies.

Cr 4.

**AFL 472 Air Force Management and Leadership II**

Organizational and personal values; management of forces in change; organizational power, politics, managerial strategy, and tactics; Air Force cases studied.

Cr 4.

**AFL 481 National Security Forces in Contemporary American Society**

Focus on the armed forces as part of American society, emphasizing civil-military relations in context of U.S. policy formulation and implementation. Requirements for adequate national security forces; political, economic, and social constraints on the national defense structure; impact of technological and international developments on strategic preparedness; the variables involved in the formulation and implementation of national security policy.

Cr 3.

**AFL 482-483 The Military Profession**

Focus on attitudes toward the military, socialization processes, role of the professional military leader-manager, and military justice and administrative law.

Cr 1.

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## GRADUATE PROGRAMS

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Office of Graduate Affairs, 100 Payson Smith, Portland, 780-4386

The following graduate programs are available at the University of Southern Maine. The programs are described in detail in the graduate catalog.

*School of Applied Science:* Computer Science; Applied Immunology; and in cooperation with the University of Maine in Orono: Electrical Engineering. *College of Arts and Sciences:* New England Studies, Statistics. *College of Education:* Adult Education, Counselor Education, Educational Administration; Exceptionality; Instructional Leadership, Literacy Education; School Psychology. *School of Business, Economics and Management:* Business Administration; *School of Nursing:* Nursing; *Inter-College Program:* Public Policy and Management; *University of Maine School of Law:* Law (Juris Doctor)

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## SCHOOL OF LAW

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*Dean:* Donald N. Zillman; *Associate Dean:* Colleen Khoury

*Professors:* Cluchey, Delogu, Friedman, Gregory, Kandoian, Lang, Loper, Potter, Rogoff, Ward, Wroth, Zarr; *Associate Professors:* Khoury, Mullane, Rieser, Wells; *Visiting Associate Professor:* Murray; *Adjunct Professors:* Godfrey, Petrucci, Wernick; *Lecturers:* Hunt, Kaminski, McGaughey, Munch, Plimpton, Priest, Thorne, Wheeler

The University of Maine School of Law is a small school that has long offered a high quality of legal education to a carefully selected 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 will 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 friendly atmosphere. These factors do much to ease the strains attendant upon entry to an exacting profession.

The School averages 80-90 students per class, of whom approximately 50 percent are women; the number of students in the School is about 260, 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 faculty consists of 16 full-time and a number of part-time instructors. It is drawn from many specialties and represents a diversity of backgrounds and interests.

The School is fully accredited by the American Bar Association and is a member of the Association of American Law Schools.

Established at Portland in 1961, the Law School is the successor to the University of Maine College of Law which existed in Bangor from 1898 to 1920 and later Portland-based private law schools. It is an administrative unit of the University of Southern Maine, but has responsibilities to the statewide University system. The school is located in a building, fully accessible for handicapped students, that provides facilities for classroom and seminar discussion, library research, moot court participation, clinical practice, legal publications, and student activities.



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## SUMMER SESSION

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*Director:* Rosa S. Redonnett

During the summer, the University offers over 300 credit courses and a number of institutes and programs. The Stonecoast Writers' Conference, courses for music educators, Childhood Psychopathology Institute, and a music camp for talented high school musicians represent just a few of the many special programs available for people of all ages. In addition to the 4,600 students who enroll in academic courses, over 8,000 people attend summer conferences and special institutes in University facilities. Classes are held days and evenings in several schedule formats. The campus offers residence hall accommodations and meals at reasonable rates. Child care is also available for faculty, staff, students, and conference participants.

For further information, write to: Summer Session, University of Southern Maine, 106 Payson Smith, Portland, ME 04103 or telephone (207) 780-4076.

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## OFFICE OF SPONSORED RESEARCH

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*Director:* Robert J. Goettel

The Office is responsible for encouraging grant and contract initiatives that support program-related activities of individual faculty, academic departments, and research and development units. The Office promotes awareness of funding opportunities and deadlines among faculty and staff, maintains up-to-date information on potential sponsors, assists faculty and staff in identifying possible sponsors for projects, assists in matching project planning to sponsor priorities and requirements, and assists in contacts with funding agencies.

Faculty and research staff of the University of Southern Maine are involved in a wide range of research, policy and program development and evaluation, technical assistance, and training initiatives for public and private agencies in the state and throughout the nation. Many of these programs are implemented through institutes and centers designed to bring the resources of the University to bear on problems and issues of concern to society. To develop new knowledge and understanding and to transfer knowledge to practitioners, these institutes and centers often include USM faculty and staff from several disciplines in interdisciplinary teams engaged in the study of specific problems. The USM institutes and centers and the academic units with which they are primarily affiliated are as follows:

*Center for Aging and Rehabilitation Policy* CARP is a unit of the Muskie Institute.

*Center for Applied Research and Evaluation* CARE is a unit of the College of Education.

*Center for Business and Economic Research* CBER is a unit of the School of Business, Economics and Management.

*Center for Child and Family Policy* CCFP is a unit of the Muskie Institute.

*Center for Health Policy* CHP is a unit of the Muskie Institute.

*Center for Housing and Land Use* CHLU is a unit of the School of Business, Economics and Management.

*Center for Study of Lives* CSL is a unit of the College of Education.

*Center for Technology Transfer* CTT is a collaborative program with the University of Maine.

*Child and Family Institute* CFI is a unit of the Division of Human Resources.

*Cumberland Legal Aid Clinic* CLAC is a unit of the School of Law.

*Institute for Real Estate Research and Education* IRERE is a unit of the School of Business, Economics and Management.

*Marine Law Institute* MLI is a unit of the School of Law.

*Production Technology Center* PTC is a unit of the School of Applied Science.

*Professional Development Center* PDC is a unit of the College of Education.

*Small Business Development Center* SBDC is a unit of the School of Business, Economics and Management.

*Survey Research Center* SRC is a unit of the Muskie Institute.

See the appropriate school or college section of this catalog for further information.

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## OFFICE OF PUBLIC SERVICE

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*Director:* William G. Mortensen

*Assistant to the Director:* Ellen M. Corkery

The Office of Public Service is responsible for the development, coordination, and support of the University's noncredit programs. It offers a wide range of noncredit activities to meet the professional and personal needs of the residents of southern Maine. During 1990-1991, over 50,000 persons participated in conferences, seminars, workshops, short courses, and certificate programs sponsored by the Office.

**CEU Award System** The Office administers the Continuing Education Unit (CEU) Award System. The CEU is a nationally accepted unit of measurement applicable to noncredit continuing education. CEU courses are generally designed for a specific audience and are often used for professional development in a particular industry or profession. The CEU permits the individual to participate in many kinds of programs while accumulating a uniform record available for future reference. One CEU is awarded for 10 hours of participation in an approved program of continuing education.

The following information indicates the variety and scope of the University's noncredit activities. Specific inquiries about these programs should be directed to the appropriate department. General inquiries should be directed to the Office of Public Service, 68 High Street, Portland, Maine 04101, 874-6515.

### DEPARTMENT OF CONTINUING EDUCATION FOR BUSINESS

*Director:* Donald J. Clark; *Administrative Manager:* Michael H. Nash

The Department of Continuing Education for Business (CEB) offers a wide variety of noncredit courses and seminars designed to meet the training needs of companies and nonprofit organizations in southern Maine. The programs include: Integrated Management, Certificate in Management, Certificate in Human Resource Management, Certificate in Office Management, and Certificate in Supervision.

For additional information and printed materials, contact the Department of Continuing Education for Business, 68 High Street, Portland, Me. 04101; telephone 874-6510.

### DEPARTMENT OF CONFERENCES

*Director:* Kathleen S. LeBel; *Assistant Director:* Frances M. Myers; *Conference Coordinator:* Elizabeth A. Morin

The Department of Conferences provides planning and coordination to University and community groups and organizations wishing to use the University's conference facilities and services. The Department occasionally provides workshops and seminars which bring together qualified individuals to share new information and ideas, upgrade professional skills, or to impart new techniques.

The Department's 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 either campus, or off-campus wherever an appropriate meeting site can be arranged.

Each summer the Department of Conferences offers a number of camps for junior and senior high school age students. Offerings for the summer include USM Soccer School, "SWISH" Basketball Camp, "STIX" Field Hockey Camp, Southern Maine Music Academy, and Fundamental Baseball Camp.

For information about these and other conference services at USM, please call 874-6506.

### DEPARTMENT OF CONTINUING EDUCATION FOR NURSING AND HEALTH PROFESSIONS

*Director:* Mary Ann Rost

The Department of Continuing Education for Nursing and Health Professions develops, offers, and evaluates noncredit programs in a variety of formats to meet the learning needs of nurses and other health professionals at locations throughout the state of Maine. Programs are available either on a fee basis or through specifically designed contracts with health care agencies.

Programs offered by the Department are conducted in cooperation with health agencies, health care officials in the state of Maine, or at the request of a group or individual. Examples of groups served are: nurses, pharmacists, dieticians, physical therapists, occupational therapists, and social workers. The Department offers a certificate program in nursing leadership and management.

For information call 874-6550.

## **DEPARTMENT OF COMMUNITY PROGRAMS**

*Director:* Joanne Spear; *Assistant Directors:* Susan Sinclair, Nancy Viehmann; *Program Coordinator:* Sharon Hansen

The Department of Community Programs offers a wide range of programs including professional development in selected areas, personal enrichment, and career and skill enhancement. Community Programs are generally designed for adults with full-time home and career responsibilities who desire practical courses which meet a specific need and which are offered at convenient times.

The Department offers numerous personal enrichment courses and workshops and a certificate program for paralegals, a certificate program in personal computer management, a certificate program in conflict management, and the Community Leadership Institute, a series of programs designed to respond to the growing need for well-informed and effective leaders in southern Maine.

Please contact the Department at 874-6500 for more information.

## **LIFELINE CENTER FOR FITNESS, RECREATION AND REHABILITATION**

*Director:* Thomas J. Downing; *Fitness Program Manager:* Peter Allen; *Rehabilitation Program Manager:* P. Len Jordan; *Medical Director:* Peter K. Shaw, M.D.

The Lifeline Center is designed to help individuals and organizations in southern Maine adopt health-enhancing lifestyles by providing leadership and services in exercise, rehabilitation, education, recreation, and employee wellness. Many of Lifeline's fitness and rehabilitation activities require medical clearance from personal physicians. Application to all programs should be made well in advance.

Among the programs offered by Lifeline are aerobic exercise programs, weight training and conditioning programs, rehabilitation programs, education and leisure services, and health education services. Lifeline also offers a certificate program in fitness instruction.

For more information on the variety of programs offered, call 780-4170.

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## UNIVERSITY OF SOUTHERN MAINE ALUMNI ASSOCIATION

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The University of Southern Maine Alumni Association numbers nearly 24,000 active members representing alumni of Gorham Normal School, Gorham State Teachers College, Portland Junior College, Portland University, University of Maine in Portland, Gorham State College, University of Maine at Portland-Gorham, and the University of Southern Maine. The Association is governed by a 22-member board of directors (including a student member) and an Alumni Advisory Council which provides support to the board of directors and the executive director regarding general alumni matters.

The USM Alumni Association works to expand the tradition of service both to the alumni and the USM community, carrying on a tradition established some years ago by the Gorham Alumni Association. The Association, while serving the alumni of the University of Southern Maine and its predecessor institutions, its current and future students, and the University community, strives to promote the University through increased involvement, commitment, and communication. The Association serves as the vehicle to enable alumni to further the University as an important educational, economic, cultural, and social influence in the state of Maine.

The Association, through its membership, serves as an advocate and participates in support of University program development. It promotes increased educational aspirations within the community at large and a sense of fellowship among its members. Students are urged to visit the Alumni House on the Portland campus and to get acquainted with the people and programs of the Alumni Association before graduation.

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# ADMINISTRATION OF THE UNIVERSITY OF SOUTHERN MAINE

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*Administrative Organization as of July 1, 1992*

*President:* Richard L. Pattenau, 705 Law Building, Portland, tel: 780-4480

*Provost and Vice President for Academic Affairs:* John Deegan, Jr., 711 Law Building, Portland, tel: 780-4485

*Vice President for Administration:* Samuel G. Andrews, 723 Law Building, Portland, tel: 780-4484

*Acting Vice President for Student Affairs:* Judith S. Ryan, 721 Law Building, Portland, tel: 780-4035

*Executive Director, University Advancement:* Richard H. Sturgeon, 732 Law Building, Portland, tel: 780-4708

*Executive Assistant to the President:* Robert J. Goettel, 709 Law Building, Portland, tel: 780-4482

## ***Administrative Offices Serving Students***

### *Admissions*

Daniel Palubniak, Director

### *Advising and Career Services*

Lawrence Bliss, Director

### *Applied Science, School of*

Brian C. Hodgkin, Dean

### *Arts & Sciences, College of*

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### *Athletics*

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### *Bookstores*

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### *Business, Economics and Management, School of*

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### *Child Care Services*

Helene Gerstein-Sky, Director

### *Counseling Services*

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James S. Catterall, Dean

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### *Financial Aid, Student*

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Coin P. Hauk, Director

### *Public Service*

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### *Registrar's Office*

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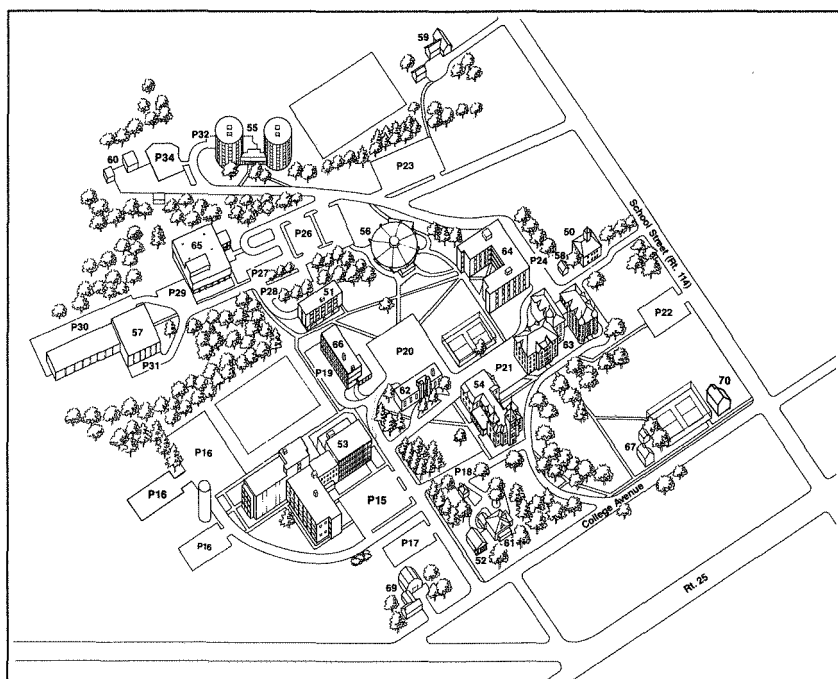
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- Sutton, John M., Jr.** (1978) Professor of Education; Boston College, A.B., 1961; University of Maine, M.S., 1972; Ed.D., 1976
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- Swartz, Richard G.** (1991) Assistant Professor of English; Washington University, B.A., 1976; University of California, Ph.D., 1986
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- Tiffany, Julia** (1981) Interim Dean; Associate Professor, School of Nursing; University of Washington, Seattle, B.S., 1962; Rutgers, The State University, M.S., 1967; Vanderbilt University, Ed.D., 1990
- Tilbor, Karen R.** (1986) Research Associate, Muskie Institute; Elmira College, B.A., 1968; Wheelock College, M.S.Ed., 1969
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- Tougas, Cecile T.** (1990) Assistant Professor of Philosophy; Duquesne University, B.A., 1968; M.A., 1973; Ph.D., 1981
- Tucker, Frances M.** (1970) Registrar, University of Maine School of Law
- Tukey, Geraldine M.** (1970) Associate Professor, School of Nursing; Mercy College of Detroit, B.S., 1957; Boston University, M.S., 1964
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- Ubans, Juris K.** (1968) Professor of Art; Director, Art Gallery; Syracuse University, B.F.A., 1966; Pennsylvania State University, M.F.A., 1968
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- Ventresco, Fiorello B.** (1966) Associate Professor of History; Boston University, A.B., 1959; University of Michigan, M.A., 1961
- Vess, Susan M.** (1988) Associate Professor of School Psychology; Human Resource Development; Loretto Heights College, B.A., 1970; University of Illinois, A.M., 1972; Ph.D., 1977
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- Vijaykumar, Rukmini** (1988) Assistant Professor of Computer Science; Indian Institute of Technology (India), M.Sc., 1976; M.Tech., 1978; University of Massachusetts, Ph.D., 1988
- Vincent, Noreen** (1985) Learning Resource Consultant, School of Nursing; Hunter College, B.S.N., 1973

- Vines, Susan W.** (1991) Assistant Professor of Nursing; Keuka College, B.S.N., 1966; Boston University, M.S.N., 1971; Case Western Reserve University, Ph.D., 1987
- Violette, George R.** (1988) Associate Professor of Accounting; University of Maine at Augusta, B.S., 1978; University of Maine, M.B.A., 1984, Arizona State University, Ph.D., 1987
- Vose, Margaret E.** (1987) Laboratory Associate, Department of Geosciences; Springfield College, B.S., 1980
- Voyer, John J.** (1987) Associate Professor of Business Administration; Harvard University, A.B., 1973; Clark University, M.B.A., 1981; University of Massachusetts, Ph.D., 1986
- Vreeland, Sarah J.** (1989) Research Assistant, Muskie Institute; University of Wisconsin, Green Bay, B.S., 1980; M.S., 1984
- Wagner, David** (1988) Assistant Professor of Social Work; Columbia College, B.A., 1972; Columbia University, M.S., 1976; University of Massachusetts, M.A., 1980; City University of New York, Ph.D., 1988
- Walking, Robert A.** (1969) Associate Professor of Physics; Swarthmore College, B.A., 1953; Harvard University, M.S., 1954; Ph.D., 1962
- Walton, David** (1990) Assistant Director for Data Processing, Student Financial Aid; University of Maine, B.A., 1990
- Ward, Thomas M.** (1976) Professor, School of Law; University of Pennsylvania, B.A., 1965; Notre Dame Law School, LL.B., 1968; University of Illinois Law School, LL.M., 1970
- Waxler, Lawrence I.** (1976) Accountant/Systems Administrator, Office of Sponsored Research; University of Southern Maine, B.S., 1975; M.B.A., 1989
- Weber, Kenneth E.** (1991) Assistant Professor of Biology; Northern Arizona University, B.A., 1971; College of William and Mary, M.A., 1979; Harvard University, Ph.D., 1986
- Webster, Brenda D.** (1984) Coordinator of Academic Advising and Information Systems, School of Nursing; University of Southern Maine, B.A., 1981
- Weil, E. Jane** (1987) Research Assistant, Muskie Institute; University of Oregon, B.A., 1962; University of Pittsburgh, M.Ed., 1967
- Wells, William** (1986) Law Librarian and Professor of Law; Eastern Oregon College, B.S., 1972; University of Puget Sound, J.D., 1977; University of Washington, M.L.L., 1979
- Welty, Charles** (1979) Professor of Computer Science; University of California at Berkeley, B.S., 1967; M.S., 1968; University of Massachusetts, M.S., 1977; Ph.D., 1979
- West, Richard L.** (1991) Assistant Professor of Communication; Illinois State University, B.A., 1983; M.S., 1984; Ohio University, Ph.D., 1991
- Westfall, James R.** (1983) Associate Professor of Associate Business Administration; Dartmouth College, A.B., 1967; Amos Tuck School of Business Administration, M.B.A., 1968
- Weyand, Arthur** (1989) Coordinator of International Student Language Services; Colby College, B.A., 1968; University of Wisconsin, M.A., 1969; Trinity College Dublin, H.Dip.Ed., 1974; Oxford Center for English Studies, RSA Cert. TEFL, 1981
- Whiteside, David E.** (1989) Associate Professor of Management and Organizational Studies and Faculty Associate in Public Policy and Management; University of the South, B.A., 1964; University of Michigan, M.A., 1966; Ph.D., 1971; University of Louisville, M.S.S.W., 1977
- Whitmore, Allan R.** (1969) Associate Professor of History; University of Maine, B.A., 1962; Northwestern University, M.A., 1964; Ph.D., 1970
- Wilcox, Lynn** (1989) Senior Law Cataloger, School of Law; University of Southern Maine, B.A., 1976; Simmons College, M.S., 1981
- Willard, Jonathan S.** (1987) Assistant Director, Management Information Systems; University of Southern Maine, B.S., 1987
- Willard, Nancy L.** (1969) Assistant Professor of Physical Education and Recreation; Russell Sage College, B.S., 1958; SUNY, Plattsburgh, N.Y., M.S., 1967
- Williams, Michael C.** (1992) Assistant Professor of Political Science; University of Victoria, B.A., 1984; Queen's University, Ontario, M.A., 1985
- Wilson, Diana** (1990) Learning Resource Consultant, University of Maine, B.S.N., 1985
- Wilson, Trudy G.** (1992) Assistant Professor of Art Education; University of North Carolina at Charlotte, B.A., 1970; Appalachian State University, M.A., 1982
- Wininger, Kathleen J.** (1989) Assistant Professor of Philosophy; Southern Connecticut State University, B.A.; Temple University, Ph.D., 1988
- Wise, John** (1990) Television Projects Manager; University of Southern Maine, B.A., 1990
- Wood, Margo** (1980) Professor of Education; Vassar College, B.A., 1961; University of Southern Maine, M.S., 1979; Boston University, Ed.D., 1986
- Wood, Tiffany** (1987) Assistant to the Director for Training and Special Events, Small Business Development Center; New England College, B.A., 1986
- Woshinsky, Oliver H.** (1971) Professor of Political Science; Oberlin College, B.A., 1961; Yale University, M.A., 1967; M. Phil., 1968; Ph.D., 1971
- Wright, Beverly A.** (1992) Research Assistant IV, Muskie Institute; University of Southern Maine, B.S., 1971; M.S., 1977; Boston University, Ed.D., 1981
- Wroth, L. Kinvin** (1964) Professor, School of Law; Yale, B.A., 1954; Harvard, J.D., 1960
- Young, Cynthia A.** (1978) Staff Associate for Student Advising, School of Business, Economics and Management; University of Southern Maine, B.S., 1987
- Zaner, John A.** (1974) Associate Professor of Technology; Millersville State College, B.S., 1969; M.Ed., 1972; Pennsylvania State University, Ed.D., 1977
- Zarr, Melvyn** (1973) Professor, School of Law; Clark University, A.B., 1958; Harvard University, LL.B., 1963
- Zillman, Donald** (1990) Dean, University of Maine School of Law and Godfrey Professor of Law; University of Wisconsin, B.S., 1966; J.D., 1969; University of Virginia, LL.M., 1973
- Zimmerman, Jean T.** (1983) Coordinator of Student Intramurals and Recreation; Gettysburg College, B.A., 1974; University of New Hampshire, M.S., 1978

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### Gorham Campus

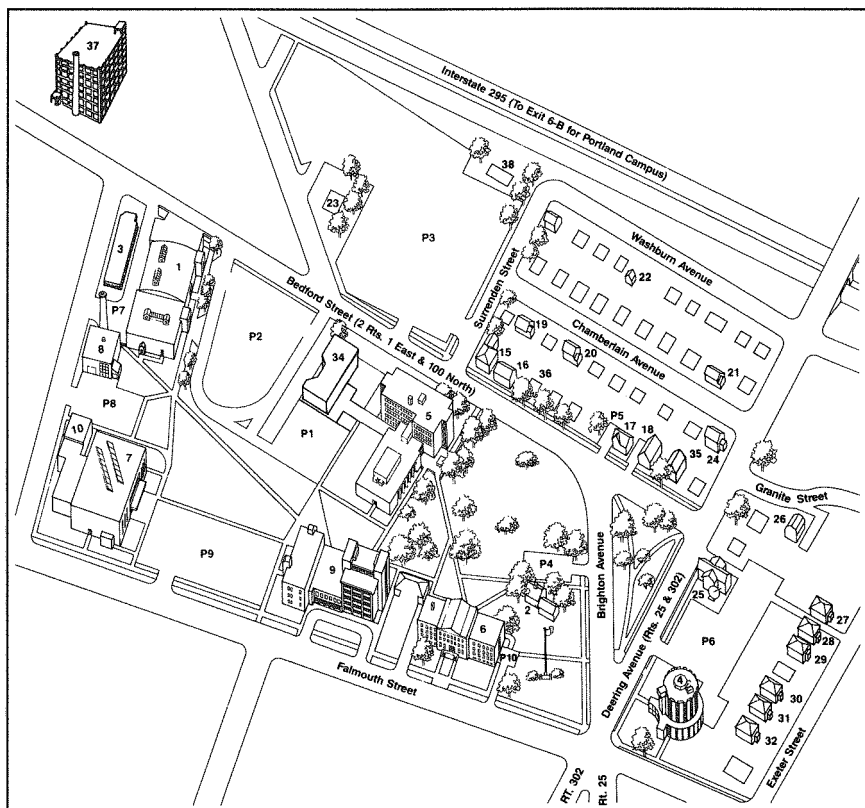
- 50. Academy Building
- 51. Anderson Hall
- 52. Art Gallery
- 53. Bailey Hall (Library)
- 54. Cortell Hall
- 55. Dickey/Wood Hall
- 56. Dining Center (Bookstore/  
Student Center)
- 57. Technology Center
- 58. Mechanical Maintenance  
Shop
- 59. McLellan House
- 60. Central Heating &  
Sewerage Plants
- 61. President's House
- 62. Russell Hall
- 63. Robie/Andrews Hall
- 64. Upton/Hastings Hall
- 65. Warren Hill Gym
- 66. Woodward Hall
- 67. 19 College Avenue
- 69. 51 College Avenue
- 70. 7 College Avenue

### Parking

- \*P15. Faculty/Staff
- \*P16. Student Commuter
- P17. Faculty/Staff
- \*P18. Visitor
- \*P19. Student Commuter
- P20. Faculty/Staff
- \*P21. Faculty/Staff
- P22. Student Commuter
- P23. Student Resident
- \*P24. Student Resident
- P26. Student Resident
- \*P27. Faculty/Staff/  
Student Resident
- P28. Student Resident
- \*P29. Faculty/Staff
- \*P30. Student Commuter/  
Faculty/Staff
- P31. Faculty/Staff
- P32. Faculty/Staff
- P33. Faculty/Staff
- P34. Student Resident

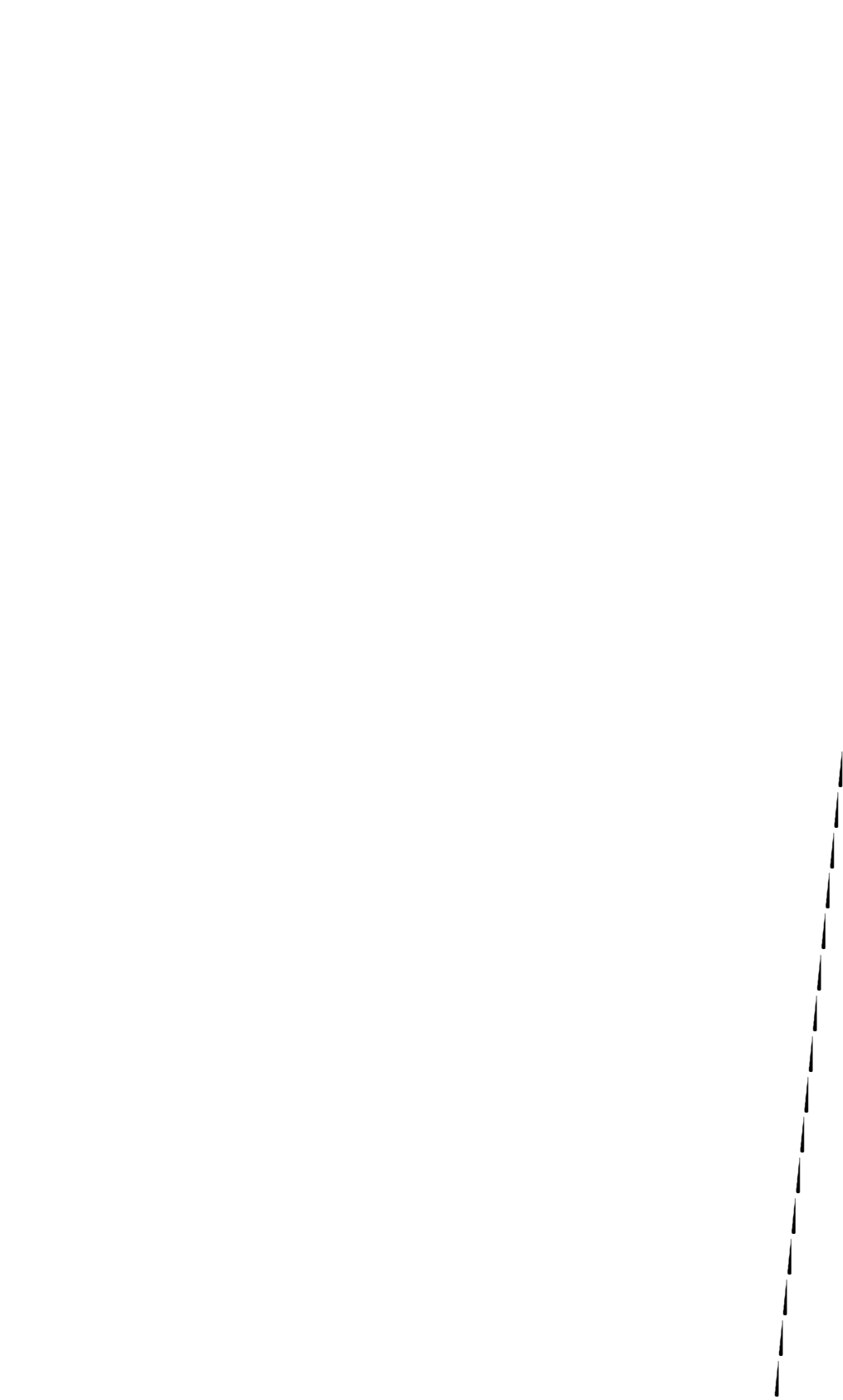
\*Designated handicap spaces in these lots.





## Portland Campus

- |  |                            |
|--|----------------------------|
| 1. Campus Center<br>(Bookstore, Dining Center) | 21. 38 Chamberlain Avenue  |
| 2. Alumni House                                | 22. 25 Washburn Avenue     |
| 3. 25 Bedford St. (Facilities<br>Management)   | 23. Powers House           |
| 4. Law School                                  | 24. 66 Winslow Street      |
| 5. Luther Bonney Hall                          | 25. 209 Deering Avenue     |
| 6. Payson Smith Hall                           | 26. 228 Deering Avenue     |
| 7. Gymnasium                                   | 27. 11 Granite Street      |
| 8. Central Heating Plant                       | 28. 39 Exeter Street       |
| 9. Science Building                            | 29. 45 Exeter Street       |
| 10. Child Care                                 | 30. 47 Exeter Street       |
| 15. 92 Bedford Street                          | 31. 55/57 Exeter Street    |
| 16. 94 Bedford Street                          | 32. 59/61 Exeter Street    |
| 17. 118 Bedford Street                         | 33. 65 Exeter Street       |
| 18. 120 Bedford Street                         | 34. Masterton Hall         |
| 19. 7 Chamberlain Avenue                       | 35. 126 Bedford Street     |
| 20. 15 Chamberlain Avenue                      | 36. 102 Bedford Street     |
|  | 37. Library Building       |
|  | 38. 13-15 Surrender Street |



Ref. Desk

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 University of Southern Maine