

1988

University of Southern Maine Undergraduate Catalog 1988-1989

University of Southern Maine

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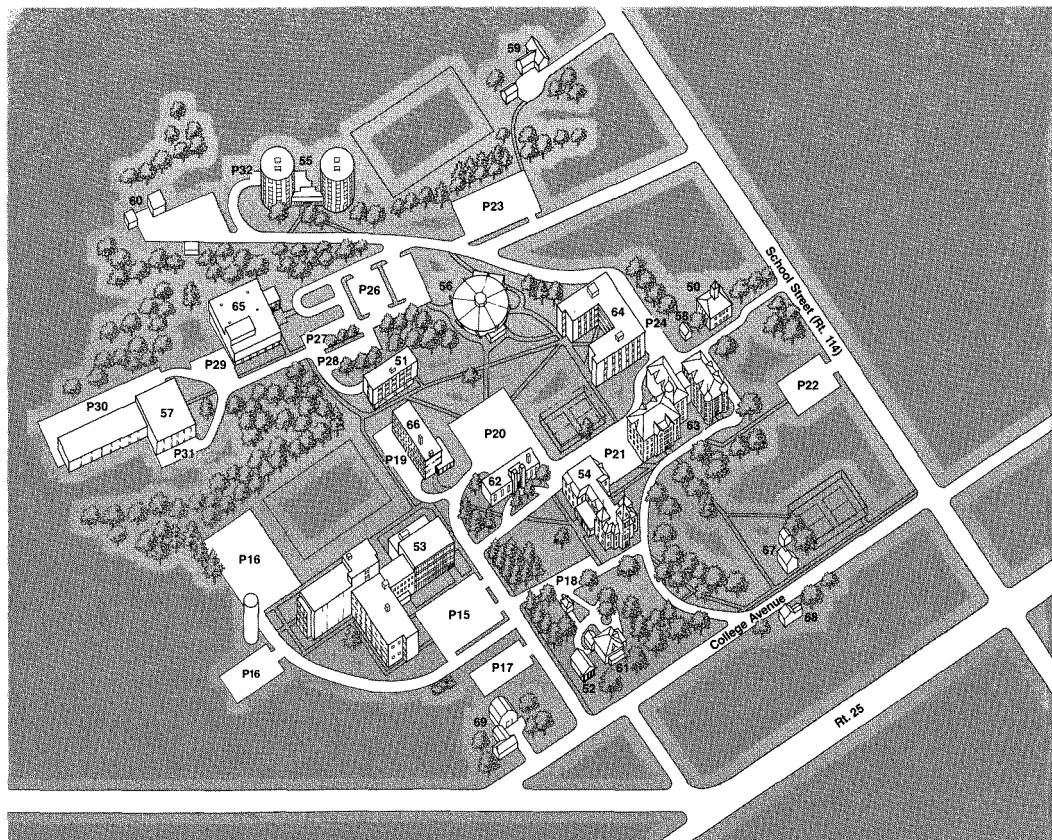
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UNIVERSITY OF SOUTHERN MAINE



Gorham Campus



Gorham Campus

- 50. Academy Building
- 51. Anderson Hall
- 52. Art Gallery
- 53. Bailey Hall (Library)
- 54. Corthell Hall
- 55. Dickey/Wood Hall
- 56. Dining Center
- 57. Industrial Education & Technology
- 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 (Bookstore)
- 65. Warren Hill Gym
- 66. Woodward Hall
- 67. 19 College Avenue
- 68. 24 College Avenue
- 69. 51 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 Resident
- P23. Student Resident
- P24. Student Resident
- P26. Student Resident
- P27. Faculty/Staff/Student Commuter
- P28. Student Resident
- P29. Visitor
- P30. Student Commuter
- P31. Faculty/Staff
- P32. Faculty/Staff

University of Southern Maine

Undergraduate Catalog
1988-1989

University of Southern Maine

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

For 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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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 and shall comply with applicable laws prohibiting discrimination on the grounds of race, color, religion, sex, sexual orientation, national origin or citizenship status, age, handicap, or veterans status in employment, education, and all other areas of the University. The University of Southern Maine does not discriminate on the basis of handicap in admission or access to, or treatment or employment in, its programs and activities, in compliance with Section 504 of the Rehabilitation Act of 1973 and its implementing regulations. In addition, the University of Southern Maine does not discriminate on the basis of sex in its educational programs or activities, in compliance with Title IX of the Education Amendments of 1972 and its implementing regulations. Inquiries about the application of Section 504 or Title IX should be directed to Nancy Boothby, EEO Director, 7 College Avenue, Gorham, Maine 04038. Telephone number: 780-5171. Inquiries about both areas may also be referred to the Office of Civil Rights, U.S. Department of Education, Region I, John W. McCormack Post Office and Courthouse Building, Boston, MA 02109.

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

1988-1989

Fall 1988 Semester

First Day of Classes	8:00 a.m., Wednesday, September 7
Convocation	Tuesday, October 4
	No Classes: Portland, 1:00 p.m. — 4:00 p.m. Gorham, 12:30 p.m. — 4:00 p.m.
Veteran's Day Break Begins	After all classes, Thursday, November 10
Classes Resume	8:00 a.m., Monday, November 14
Thanksgiving Vacation Begins	4:00 p.m., Wednesday, November 23
Classes Resume	8:00 a.m., Monday, November 28
Last Day of Classes	Thursday, December 15
Final Exams	Friday, December 16, Monday, December 19 Tuesday, December 20, Wednesday, December 21 and Thursday, December 22

Spring 1989 Semester

First Day of Classes	8:00 a.m., Tuesday, January 17
Winter Vacation Begins	After all classes, Saturday, February 18
Classes Resume	8:00 a.m., Monday, February 27
Spring Vacation Begins	After all classes, Saturday, April 1
Classes Resume	8:00 a.m., Monday, April 10
Last Day of Classes	Saturday, May 6
Final Exams	Monday, May 8 through Friday, May 12
Commencement	Saturday, May 13

Note: All Monday classes (both day and evening) will meet in place of Friday classes on Friday, January 20.

The University

One aspect of the Maine spirit, as naturalist Henry Beston has described it, "... is a positive enjoyment of adventure, character, and circumstance." This same spirit has also helped guide the development of higher education in the state of Maine. For over 100 years, the predecessors of what today is known as the University of Southern Maine have shared a continuing concern to provide an education appropriate to changing circumstances and responsive to the character and sense of adventure of their students.

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. Looking back over the history of those schools and colleges, one can appreciate that the University today is stronger because each of its predecessors grew with the times and the students they served.

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 9,000 students, and is the second largest of the seven campuses making up the University of Maine System; it offers three associate and thirty-eight 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 1,100 students in residence on the Gorham campus, the University has the characteristics of a rural, New England college; faculty close at hand and facilities set in attractive pastoral surroundings. 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, three off-campus learning centers 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 arts 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, 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. Within the past few years, a new Core curriculum has been established: a curriculum which attempts to define the types of skills and the kinds of learning experiences our graduates should have in today's world. A new University Honors Program provides an enriched undergraduate education to a selected group of students who are outstanding in their ability, curiosity, creativity, and motivation. University Convocation, first begun in 1981 and repeated yearly, seeks to address an issue of interest to the times—"The City," "The Changing Roles of Women and Men," "Peace and War in the Nuclear Age," "The Aging of America," "The Arts in Our Lives," "The Constitution," and "Contemporary Soviet Union"—and to engage students, faculty, and citizens in a common discussion across academic disciplines and between the University and the community. New graduate programs in statistics, school psychology, New England studies, applied immunology, and public policy and management reflect a concern with preparing individuals for contemporary careers. 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 and has recently been granted a ten-year accreditation, 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.

In short, the University's challenging academic program encourages students to seek leadership roles in our always changing society. So it was in 1878; so it remains today.

Programs of Study

The University of Southern Maine offers three associate and thirty-eight 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)	Liberal Studies*
Art (B.A. degree or B.F.A. degree)	Mathematics
Biology (including pre-med, pre-dental and pre-vet)	Music (B.A. degree or B.M. degree in Performance)
Chemistry	Philosophy
Communication	Physics
Criminology	Political Science
Economics	Psychology
English	Self-Designed Major**
French	Social Science
Geology	Social Work
Geography-Anthropology	Sociology
History	Theatre

*Liberal Studies: Declaration of the major is normally done at the end of the sophomore year with the approval of the Liberal Studies Major Board.

**Self-Designed Major: Approval of this program must be given by the Self-Designed Major Committee after students have enrolled at the University.

College of Education

The College of Education offers the following four-year programs leading to the degree of bachelor of science:

- Art Education (certification, K-12)
- Elementary Education (certification, K-8)
- Industrial Arts Education (certification, K-12)
- Music Education (certification, K-12)
- Vocational/Occupational Education (teaching program)
- Secondary Education Mathematics

School of Applied Science

- Computer Science (B.S.)
- Industrial Technology (B.S.)
- Vocational Technology (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.)

School of Business, Economics and Management

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

Associate Degree Programs

College of Arts and Sciences

- Liberal Arts (A.A.)

School of Nursing

- Therapeutic Recreation (A.S.)

School of Business, Economics and Management

Business Administration (A.S.)

(with concentrations in accounting; business computer programming; business management; business marketing; hotel, motel, and restaurant management; and real estate)

For further information regarding baccalaureate and associate degree programs, please refer to the appropriate school or college section of this catalog.

Undergraduate Admissions

The University of Southern Maine is an academic community that welcomes applications for admission from qualified women and men regardless of race, color, creed, national origin, handicap, or age. The Admissions Office invites prospective students to visit the campus and to discuss their educational interests. The Office will provide information about academic programs, help students plan a course of study, discuss admission requirements, and arrange a tour of the campus. Prospective students are encouraged to telephone or visit the Admissions Office (207-780-5215) located in Corthell Hall on the Gorham campus.

Admissions Requirements

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 certain schools and colleges. (A unit is equivalent to one year of study.)

General subject requirements

English	4 units
Mathematics	3 units (Algebra I, II and Geometry)

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

Science	2 units (with lab)
History/Social Science	2 units
Foreign Language	2 units (one language)
(Biology majors must have three lab units of science. Foreign language majors must have three units of a foreign language.)	

Applicants to the College of Education must also have:

Science	2 units (with lab)
History/Social Science	2 units
(Majors in Secondary Education Mathematics must have four units of mathematics.)	

Applicants to the School of Nursing must also have:

Science	2 units (with lab)
History/Social Science	2 units
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 University of Southern Maine School of Nursing section of this catalog.	

Applicants to the School of Business, Economics and Management

Admission is first to the School of Business, Economics and Management. Each student must then satisfy additional minimum standards of academic performance for admission to a major in the baccalaureate program or to a concentration in the associate degree program. For further information, please refer to the section, School of Business, Economics and Management.

For specific admissions requirements of art, music, industrial arts, industrial technology, and vocational-occupational education degrees, please refer to the appropriate sections of the catalog.

Admissions Procedures

Admission to degree programs at the University is on a selective basis. The University admits women and men to its baccalaureate and associate degree programs whose academic credentials and life experiences indicate potential for success in higher education.

Each applicant for admission is required to submit a completed University of Maine Application Form and a nonrefundable \$15 application fee. The Application Form calls upon 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 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

Since there is insufficient time to provide necessary student services, applications which remain incomplete beyond one week prior to the opening of classes cannot be approved. Applicants who are in this situation may register as Special Students and request reactivation of their application for the following semester. Special Students are ineligible for University housing, financial aid and athletic competition.

Admissions Decisions

The University recognizes that its prospective students may come with differing academic backgrounds and some with a 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., subjects presented, grades, standardized test scores), 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 and Academic Information Department. Normally, students who are admitted with conditions take a reduced courseload for the first few semesters. These students should expect to take longer to complete a degree program at the University than students granted Regular Acceptance. 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.

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 is required. If, however, a student wishes to resume studies as a degree candidate after the ten-year period has elapsed, an application for readmission must be filed with the Admissions Office.

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 director 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 20 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; one year of social science/history; one year 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, Gorham, Maine 04038.

The Admissions Office in cooperation with the Dean's Office in the College of Arts and Sciences will review each Early Admission application. Students thus admitted under this program are accorded all the rights and privileges of entering freshmen. Academic advising can 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 should be received 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 Declaration and Certification of Finances Statement must be filed as part of the application process. This form must be fully documented and notarized 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 international students must submit test results of the Scholastic Aptitude Test (SAT). SAT scores are not required of applicants who have completed at least one year of university or college study at an English-speaking institution of higher education. For September 1989 admission, all international student admission credentials must be filed with the Admissions Office no later than April 15, 1989.

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 and Academic Information Department 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 Academic Information Department, Payson Smith Hall, on the Portland campus or the USM off-campus center nearest them for further information.

Admissions Applications

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 their secondary school transcript to be sent to the Office of Admissions. Scores from the Scholastic Aptitude Test (SAT) of the College Board must also be submitted. 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.

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 their collegiate transcripts together with secondary school and SAT records. Those transfer candidates who have earned 30 or more semester hours of collegiate credit must submit their collegiate transcripts for evaluation, but may forego submitting secondary school transcripts and SAT scores.

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. Students may, in individual cases, petition the dean of the appropriate school or college, for consideration of such coursework.

From Within the University of Maine System Applicants who have completed coursework at other campuses of the University of Maine System should procure an Application Form from the Admissions Office of any University of Maine campus. Students should request that their transcripts be sent to the USM Admissions Office. This will be done at no cost to the student.

Students must have a minimum grade point average which places them in good academic standing at USM to be eligible for consideration for transfer. 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.

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 to be 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 Office of Transfer Affairs 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 Office of Transfer Affairs 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 students with a SAT Mathematics score below 450 or a Test of Standard Written English (TSWE) score below 43 must take the Placement Examinations. The requirement applies to (1) new baccalaureate and associate degree students; (2) transfer students with less than 30 transfer credits; and (3) readmitted students with less than 30 credits. Special students are encouraged to take the Placement Examinations and should contact their academic counselor for details. Copies of the publication, *Placement Examination Program*, are available at the Testing and Assessment Center, Portland campus, Advising and Academic Information, 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), 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, 100 Payson Smith Hall, Portland campus (780-4067).

Advanced Placement The University participates in the Advanced Placement Program of the College Entrance Examination Board. Applicants interested in advanced placement with credit should make arrangements to take the Advanced Placement Tests given by the C.E.E.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 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 (780-4067) for further information and testing schedules.

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, 780-4067.

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 should 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* (PONSI). 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 to qualified candidates from the New England states. Tuition rates for regional candidates approved by the Board of Trustees will be that of in-state tuition plus a surcharge of 25 percent. 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 1988-89. The 1989-90 listing will be available from the New England Board of Higher Education during the fall of 1988. Check with 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	O	O	O	O	O
<i>Bachelor Degree Programs</i>					
Art Education	C	X	C	O	C
Criminal Justice/Criminology	X	X	O	O	X
Industrial Technology	X	X	X	X	O
Therapeutic Recreation	C	O	C	O	X

X = state offers program under the RSP

C = state offers a comparable program, but not under the RSP

O = state does not offer a comparable program; open to its residents

Financial Information

The charges listed below were in effect as of June 1988. 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 any time prior to the date of final registration for a given academic term. A student acknowledges this reservation by applying for admission or registering for courses.

There are three types of tuition charged: undergraduate, graduate, and law. 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.

The rates below apply to students admitted to a USM undergraduate degree program or registering for undergraduate courses only. Students who have not been admitted into a USM undergraduate degree program and who are registering for graduate and/or law courses in addition to undergraduate course(s) are charged a higher rate for all courses.

Tuition

Undergraduate Tuition Charges Per Credit Hour

Maine Resident	\$ 56.00
Non-Maine Resident	\$158.00
New England Regional Program	\$ 70.00

Fees

Application Fee A mandatory \$15.00 fee is charged to an applicant who has not previously matriculated at the University of Southern Maine. This fee is only charged once.

Matriculation Fee A mandatory one-time \$15 fee charged to create a student record when a student begins pursuing a degree within the University of Maine System.

Advising and Orientation Fee A mandatory \$25.00 fee is charged to newly admitted undergraduate students. This fee is only charged once.

Activity Fee This is a mandatory fee charged each semester. Undergraduate students registered for at least 6 but not more than 11.5 credits are charged \$14.00; students registered for 12 or more are charged \$23.00.

Recreation Fee A mandatory \$7.50 per semester fee charged students registered for 6 or more credit hours.

Course Fees A mandatory fee is assessed for some courses. These fees cover costs associated with specialized instruction. The applied music fee is an example of this type of charge. 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 \$42.00; students registering for one semester are charged \$21.00. Additional information is available from Health Services. A student must be registered for three or more credits to qualify for this optional service.

Health Service and Insurance Package This is an optional package that includes the Health Service fee and health insurance. Students planning to register for both fall and spring semesters are charged \$162.00; students registering for one semester are charged \$101.00. A student must be registered for three or more credits to be eligible to participate. Additional information is available from Health Services.

Commencement Fee A mandatory \$15.00 fee charged to a student who completes degree requirements. This fee must be paid at least six weeks prior to Commencement.

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

Insufficient Funds Fee A \$5.00 fee charged when a student's check is returned or a bank card payment is declined for insufficient funds.

Room and Board

Board Students living on the Gorham campus must purchase one of the three following meal plans. Students living in the Portland residence hall are also required to purchase a meal plan. Information about meal plans available to students living in the Portland Hall is available from Residence Life.

10 Meal Plan	\$720.00 per semester
14 Meal Plan	\$770.00 per semester
19 Meal Plan	\$810.00 per semester

Students living off campus may elect to purchase any of the residence meal plans, the "60 Meal Deal" or meal coupons. Information about the meal plans is available from Residence Life.

Room The University offers housing on the Gorham campus and within walking distance of the Portland campus. Rates vary. Additional information is available from Residence Life. There are additional charges for parking at the Portland facility.

Gorham Residence Halls	
Double Room	\$835.00 per semester
Single Room	\$985.00 per semester
Portland Residence Hall	
A wing	\$1,024 per semester
B wing	974 per semester
Yankee Clipper Wing	1,099 per semester

Telephone Fee Students living in University housing may purchase telephone service. Information about rates and restrictions is available from Residence Life.

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 administered by the Academic Management Service (AMS). The University does not assess any additional fee for either plan. AMS charges a \$45.00 fee to enroll in the ten payment plan and a \$15.00 fee to enroll in the three payment plan.

Deposits

When a student is notified of acceptance into a University degree program, a \$25.00 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 Office of Residence 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 Residence 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.

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 \$1,000 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.

Each semester, the University establishes deadlines for financial aid application. Students who apply on time may defer paying University charges while the financial aid application is processed.

Installment Payment The University offers payment plans administered by the Academic Management Service (AMS). A student must be registering for at least six credit hours to participate in either AMS plan. Additional information about these plans and enrollment deadlines is available from Student Billing. The ten payment plan is recommended for students planning to attend both semesters. A three payment plan is also available. AMS charges a \$45.00 fee to enroll in the ten payment plan and a \$15.00 fee to enroll in the three payment plan.

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. Unless other appropriate payment arrangements have been made, charges must be paid prior to the first day of scheduled University classes.

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. 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 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

During the first two weeks of classes, academic schedules may be adjusted. A student is not charged for a course dropped during this period. This adjustment period begins with the first day of scheduled University classes and includes weekends and holidays. The date the Registrar receives a Schedule Change Form dropping a course is used to determine when adjustment is appropriate.

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. Charges will not be reduced for voluntary absence from classes. Contact the Registrar 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%
<i>Special and Summer Sessions that are three weeks or less</i>	
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 Residence 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 Business Manager, 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 an 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 an 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 Business Manager, or other designated official. If the Business Manager's (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, whose decision shall be final.

In the event that the campus Business Manager, 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 Business Manager 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.



Student Financial Aid

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 1987-88 academic year, more than \$6,500,000 was available from aid programs. The average student aid award was \$2,900. In addition, the University helped 1,300 students borrow more than \$2,400,000 in low interest loans from commercial lenders. Over 250 students found jobs with the assistance of the Job Locator Program and earned more than \$800,000. Students may also choose to participate in the Reserve Officer Training (ROTC) program and receive \$100 per month during their junior and senior year.

Eligibility for Aid

Financial need exists when the student and his/her family do not have enough money to pay college costs. Since the federal government provides most of the funds the University allocates to students, need is determined in accordance with a formula approved by the U.S. Department of Education.

Aid can be granted only to U.S. citizens and certain non-citizens. Non-citizens are encouraged to contact the Student Financial Aid Office for more information.

Before receiving funds, a student must be admitted to the University and register for at least six credit hours. Student aid recipients must demonstrate satisfactory academic progress to maintain eligibility. A complete statement of this policy will be found at the end of this section.

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.

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.

Students must also submit a statement certifying that they have never defaulted on repaying a student loan and do not owe a repayment of federal grant funds. This is provided by the Student Financial Aid Office. Students who have defaulted or owe a repayment are not eligible for assistance.

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 as early as possible after January 1. Many find it convenient to apply at the same time a federal income tax return is completed. While no deadline exists for entering students, early application is encouraged. Continuing students should apply before April 1, 1989.

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.

Students and the parents of dependent students are required to submit copies of tax returns and other financial records to verify information reported on the FAF.

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.

Any student who attended any vocational school or college, other than

the University of Southern Maine, must also submit a Financial Aid History (FAH) 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 FAH must be completed even if the student did not receive aid from other school(s) attended.

How Financial Aid is Allocated

The University begins reviewing student aid applications in early spring. Once a student is accepted by the Admissions Office, a completed FAF is received, and the University is told how much federal aid it will have for students, a notice of eligibility is sent. If a student receives outside scholarship funds, the amount of aid from the University may have to be reduced.

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.

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.

Students are offered aid in a package which may consist of grant and/or loan and/or work-study. Students who have a bachelor's degree usually receive only loan and work-study funds.

Types of Aid Available

Pell Grants This is a federally funded program to help needy students. Grants vary between \$200 and \$2,300 per academic year.

Supplemental Educational Opportunity Grants This is a federally funded program to help needy students. Grants range from \$200 to \$4,000 per academic year.

University and Miscellaneous Scholarships These are funded by the University and private donors. Awards range from \$100 to \$2,000 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.

National Direct Student 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 National Direct Student Loan.

Guaranteed Student Loans This program, sponsored by the federal and state governments, allows students to secure low-cost loans. Contact your local bank, credit union, or savings and loan institution for more information.

Guaranteed Parent Loans This program, sponsored by the federal and state governments, allows parents and some students to secure relatively low-cost loans. Contact your local bank, credit union, or savings and loan institution for more information.

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, Malacite, 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.

The Presidential Scholarship Program is competitive. New and currently enrolled students are invited to apply or may be nominated. Candidates will be evaluated on the basis of their academic record and their scholarly promise.

Presidential Scholars will receive a yearly stipend of \$1,000, for a total of \$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 Admissions Office.

For more information, 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.

Standards of Satisfactory Academic Progress

Federal regulations require the University to define standards of academic progress for students receiving financial aid. These standards are used when determining a student's eligibility for aid and are in addition to the requirements established by the Dean or Director of an academic program.

Students are eligible to receive aid while accumulating the number of credit hours normally required for graduation from the school or college in which they are matriculated. If, when the student acquires the number of credit hours usually needed for graduation, all degree requirements have not been met, the student may submit a written request for one additional year of funding. Students are encouraged to consult the University catalog for information about specific degree requirements.

Aid recipients must complete associate degree requirements within eleven semesters. A bachelor's degree must be completed in not more than twenty-one semesters. Further, students receiving financial aid must successfully complete at least six credit hours each semester. Grades of A, B, C, D, P or Y indicate a successfully completed course. A course is not successfully completed if a grade of I, F, INC, AU, L, W or MG is assigned. Plus or minus designations do not affect this requirement.

If an aid recipient does not complete six credit hours during a semester, the student is contacted and encouraged to seek academic counseling to improve academic performance. The student is also placed in a probationary status by the Student Financial Aid Office. If a student on probationary status does not complete six credit hours during a semester, she or he loses eligibility for financial aid.

To reestablish eligibility, the student must successfully complete six credit hours. While earning the credits needed to regain eligibility, the student cannot receive financial aid. A student may either repeat courses presently attempted or register for new courses when reestablishing eligibility. When eligibility is reestablished, the student is again placed in a probationary status.

Aid recipients are expected to complete degree requirements in the shortest possible period of time. Students are expected to register for fifteen credit hours per semester whenever possible. A student is usually allowed no more than two semesters of regular funding while registered for less than twelve credit hours. Once this allowance is used, the amount of money provided for living expenses will be reduced. A student registering for between six and eight credit hours receives 50% of the usual amount; a student registering for between nine and eleven credit hours receives 75% of the usual amount. If a student does not successfully complete the courses for which she or he registers, aid may be reduced, in accordance with the

previously described formula, during subsequent semesters.

Students whose personal circumstances prevent full-time attendance or inhibit academic performance may request an exception to the policy. A written request must be submitted to the Director of Student Financial Aid. The student should explain any mitigating circumstances. Students are encouraged to provide independent verification of the situation. A student citing medical problems, for instance, should provide a letter from a medical authority explaining the condition and how it affects academic performance.

Requests for policy exceptions are reviewed by a committee consisting of the Director of Student Financial Aid and three members of the Student Financial Aid Policy Advisory Committee (two faculty and one student member). The committee will review the request in view of the student's overall academic performance, the documentation provided and the availability of funds. The committee may establish specific criteria for measuring the academic progress of students in exceptional circumstances. When such standards are developed, the student will receive written notification of the exact criteria that will be in effect.

Academic Policies

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 in 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 freshmen students, readmitted students, and transfer students with less than 30 credits, admitted for the 1983-84 academic year and thereafter, must complete both the Mathematics Placement Examination and the Writing Placement Examination before registering in a mathematics or English course. (Details of these examinations may be obtained from the Office of Student Testing and Assessment.) 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 Writing Placement Examination
 3. Successfully complete ENG 009A or its equivalent (Developmental English) (no degree credit)
- 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 may apply only toward associate degrees.)
 5. Successfully complete a 100 level mathematics course (MAT 100D-MAT 152D inclusive). Enrollment must be approved by an academic advisor or the chair of the Department of Mathematics. (A passing grade in the course will satisfy both the Mathematics Proficiency requirement and the Core curriculum Quantitative Decision Making Requirement.)

For information regarding the Core curriculum, including a list of courses approved to satisfy the Core, please refer to the chapter on the Core curriculum.

Course Numbering

001-009	No Degree Credit
010-099	Associate Degree Program
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 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 transfer 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 transfer into a baccalaureate program. Generally up to 60 credits (but not quality points) of courses numbered 010-099 with grades C or better may be included toward a baccalaureate degree at the discretion of the dean.

Registration

The registration process is conducted by the Registrar, Advising and Academic Information Department, and Business Office. It includes selection of courses, completion of proper forms, and payment of University charges. Newly admitted students are notified by the Advising and Academic Information Department of their orientation, advising, and registration schedule. The Advising and Academic Information Department 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-degree students (special) 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 cir-

	cumstances 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 second week through the sixth week of a semester. If a student has not officially withdrawn by the end of the sixth week of the course, one of the above regular grades, normally F, will be assigned. The W notation may be obtained after the sixth 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.

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 four 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 semester 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 Programs</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 Programs</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

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 to be applied for credit at the University either at the University of Southern Maine or at other institutions 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 Disciplinary Code, published in the Student Handbook.

Students with majors or minors in English, history, political science, or psychology in the baccalaureate program of the College of Arts and Sciences, or the secondary education mathematics program of the College of Education 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.

Industrial arts education majors must maintain a 2.5 cumulative index prior to and throughout the professional sequence, i.e., IEA 380, IEA 381, and EDU 324. 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 may apply 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 is eligible 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 Disciplinary Code, published in the Student Handbook.

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		
Education			
Music Education	26	60	94
Elementary Education	23	53	83
All Other Programs	23	53	83

Schedule Changes

Once a semester commences, a period of one week is permitted to add courses and select or reverse the pass-fail option. A period of two weeks is permitted to drop courses with no grade notation. This procedure enables the student to make the necessary changes in the planned curriculum. A student dropping a course after the second week through the sixth week of classes will receive the grade notation of W. If a student has not officially withdrawn by the end of the sixth week of the course, he or she will be assigned a regular grade, normally F. The W notation may be assigned after the sixth 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 beginning on p. 00 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 courses.

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 two dollars for a single transcript and one dollar for each additional copy ordered at the same time. 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 Counseling and Career Development Office 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 take the matter up immediately with the Registrar's Office. 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 Office of Transfer Affairs.

Graduation Requirements

In addition to the minimum requirement 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

Graduating seniors are cited for graduation honors on the diploma and on the transcript. Students who have achieved a cumulative index of 3.50 or higher graduate *summa cum laude*; those with a cumulative index of 3.25 to 3.49 inclusive graduate *magna cum laude*; and those with a cumulative index of 3.00 to 3.24 inclusive graduate *cum laude*. The cumulative index for the purpose of graduation with distinction is based on the student's total college record.

Transfer students (including those transferring within this University from a two-year to a four-year program) must maintain a cumulative average of 3.0 or above for coursework in the baccalaureate program, and must earn at least 30 credits, normally the final 30 credits, at the University.

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 and Academic Information Department 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 two weeks of the semester, there will be no courses or grades recorded. Students withdrawing after the second week through the sixth week will receive a W grade for each course in which the student was enrolled. Students withdrawing after the sixth week will receive regular grade designations as determined by the instructors. Under unusual circumstances, grades of W can be assigned after the sixth 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 chapter.

Matriculation Status (Leave of Absence)

Matriculated degree candidates maintain their matriculation status for ten calendar years from the first semester of their 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 process will be required. In such cases the student should simply contact the Registrar's Office for registration instructions. If, however, a student wishes to resume studies as a degree candidate after the ten-year period has elapsed, an application for readmission must be filed with the Admissions Office.

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 Academic Information Department.

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 Academic Information Department.

Double Majors

When a student completes the basic requirement for graduation from schools or colleges and the course requirements for two majors, the student should request the dean to 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.

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 exam may be scheduled during the last week of classes.

Absence from a Final 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. A student who misses a final examination should immediately contact the instructor to apply for a special examination.

Independent Study Term

Information regarding an independent study term is provided in the section of the catalog describing the College of Arts and Sciences.

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.

Student Life and Services

The University offers a wide range of academic and extracurricular services to supplement, enhance, and support students as they progress toward their educational goals. The breadth of these services is designed to accommodate the needs of a diverse student population.

Enrollment Services Center

An Enrollment Services Center is located in Payson Smith Hall on the Portland campus. The Center functions as a one-stop location for registration services, financial aid assistance, admissions counseling and advising for non-matriculated (special) students.

Academic Advising

The University provides academic advising throughout a student's educational career. With assistance of faculty from the schools and colleges of the University, the Advising and Academic Information Department conducts a New Student Program for all newly admitted degree students. Upon declaring a major and being accepted, students are assigned a faculty advisor. Students are strongly encouraged to maintain regular contact with their academic advisors throughout their career at the University.

First Enrollment Advising and Registration

All newly admitted students are invited to participate in a New Student Program conducted during the summer prior to the student's first fall semester. This program is repeated in December for those students entering the University for the first time in January. The program allows a new student to register for his or her first semester of coursework with the benefit of an interview with an academic advisor. During that interview, such issues as the Core curriculum requirements and requirements of the major may be fully discussed.

Continuing 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 Academic Information Department. 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 Academic Information Department 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.

Special (non-degree) students (those who are enrolled in courses at the University on a space-available basis and who have not applied for admission) are advised by the Advising and Academic Information Department 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 Academic Information Department office in Payson Smith Hall on the Portland campus (780-4040) and in Corthell Hall on the Gorham campus (780-5340).

Off-Campus Advising and Student Services

Students attending one of the University of Southern Maine off-campus centers (Bath-Brunswick, Saco-Biddeford, Sanford) may take advantage of the range of advising and support services listed on these pages. Each cen-

ter is staffed by an academic counselor who provides services in cooperation with the appropriate on-campus department to ensure consistency and smooth transition. Services include academic advising, new student programs, placement testing, financial aid assistance, veterans' counseling, registration, billing assistance, and admissions information. Also offered are a variety of social, general interest and student government-related activities. A more in-depth description of off-campus programs and services is available in the Division of Off-Campus Instruction chapter.

Student Testing and Prior Learning Assessment Services

The Office of Student Testing and Assessment is responsible for evaluating entry-level skills of students and the development of measures to assess student needs and interests. The Office administers national examinations, and coordinates the Prior Learning Assessment Programs through the Office of Prior Learning Assessment.

Students are encouraged to contact the Office of Student Testing and Assessment (780-4383) for general information regarding the various assessment programs available, and the Office of Prior Learning Assessment (780-4067) for specific information about prior learning assessment programs.

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 every day for a total of 86 hours a week. Among the services available are: circulation and reserves, informational and research reference, bibliographic instruction, electronic database searching, and inter-library borrowing.

The collection represents nearly 700,000 items including nearly 3,000 current subscriptions to scholarly journals, magazines, newspapers, and yearbooks; over 280,000 microfilms; 67,000 international, U.S. and state documents; and the Smith collection of maps, atlases, globes, and geographies from the period 1513-1800; the University archives; and other special collections. These collections are supplemented by the over 13 million titles to which we have access through the OCLC on-line interlibrary loan network.

The Library staff is dedicated to supporting the educational, scholarly, and public service activities of the University community and to meeting the informational needs of the citizens of Maine as well.

Off-Campus Site Libraries

The University contracts with public libraries in Bath-Brunswick and 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.

Academic Computer Services

The University has available the following academic computer facilities: MS/DOS microcomputers, Apple II, MacIntosh (on both the Portland and Gorham 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); a Data General, a VAX 11/750, and an ATT 3B2 (on the Portland campus and for use by students in upper-level computer science courses). The mainframe computer is linked to the BITNET 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 and Gorham 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.

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 can 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.

Personal and Psychological Counseling Services

The Counseling and Career Development Department, through a staff of professional psychologists and counselors, assists students with personal counseling services on both a walk-in, as well as an appointment basis. As a part of this service, the office provides appropriate psychological testing, referral services, and maintains an effective liaison with community medical and mental health agencies. (780-4050)

Substance Abuse Prevention Program

This program offers students, faculty, and staff a variety of educational and experiential programs to address the problem of alcohol and drug abuse.

The program also offers prevention and intervention services for high-risk and/or identified abusers. Personal counseling is also available. Please contact 780-5072 for further information.

Career Counseling, Placement, and Internship Services

The Counseling and Career Development Department offers career counseling, vocational testing, and part-time and full-time job placement services for University students. The staff provide a complete information service, guidance information, computerized terminal services, appropriate career inventory and testing, in addition to referrals. The department also offers internship opportunities related to academic majors. (780-4050)

Handicapped Student Services

Services for students with a handicapping condition are provided through the Advising and Academic Information Department. In addition to counseling and placement services, direct academic support (including, where necessary, readers and interpreters) is provided. A specially equipped bus provides round-trip transportation between the campuses for wheelchair-bound individuals. (780-4040)

Health Services

The University offers two health care facilities for students, one in Portland and one in Gorham. In Portland, the clinic is located off the main lobby of the Gymnasium. The Gorham facility is located at 110 Upton Hall. It is recommended that students call either of the Health Centers to find out what services are available, and when.

It is recommended that students avail themselves of the many services offered by paying the voluntary health fee. An enrollment period extends into the first month of each semester. Students choosing not to pay the health fee are charged a fee for services rendered. A schedule of fees is posted in each Health Center. There is a fully descriptive brochure available as well. Health insurance is also available to students through the University. Information on Health Services is available during the New Student Program (Orientation) or can be obtained directly by calling 780-5411 (Gorham) or 780-4211 (Portland).

International Students

International students are served for immigration documentation as well as academic and personal counseling by the Office of Student Affairs (780-5242) and the Office of International Student Development (780-5313).

Information on a limited number of tuition waivers for international students is available by contacting either office.

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 40 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, Holland, and Ireland are offered each year. For information regarding International Study Programs contact the Office of International Student Development at 780-5242.

Veterans

Services to veterans are provided through the Department of Advising and Academic Information and include, in addition to certification and liaison with the Veterans' Administration, counseling and academic advising. (780-4040)

Student Activities, Campus Centers and Student Government

Student activities and leadership opportunities exist at the University to serve a variety of student interests and needs. A broad base of activities is offered each year to include educational, cultural, social, and recreational programs. Forty student organizations offer students a chance to get involved in areas of special interest.

The Student Senate administers student programs and supervises organizations including the student newspaper, *Free Press*; the student radio station, WMPC; and the literary journal, *Portland Review of the Arts*. Through its Student Events Board, the Student Senate sponsors concerts, lectures, films and other activities.

The Student Center in Gorham and the Campus Center in Portland serve as central meeting places for students, faculty, and staff. Both centers have quiet study and conversation areas as well as offices for student government and organizations. The Snack Bar in Gorham and the College Room in Portland offer campus night life and entertainment. The Area Gallery in the Campus Center brings art exhibitions and the Amphitheatre hosts spontaneous, alternative entertainment.

For further information on student activities and involvement contact the Director at 780-4090 or 780-5470.

Fraternities and Sororities

Eight social fraternities and sororities are active on the Gorham campus of the University. Four of the fraternities maintain off-campus houses and all organizations are involved in philanthropic and social activities. (780-5470)

Phi Kappa Phi

Phi Kappa Phi (local chapter est. 1976) is a national honor society which is open to students enrolled in degree programs in all colleges and schools of the University. Election is based on outstanding academic achievement, with nominations for membership made on the basis of grade point average, from the top 5% of the senior class and the top 2.5% of the junior class.

Residence Halls

The University provides student housing for approximately 1,450 students in 10 residential units, ranging in size from 15 to 180 students. Accommodations are coeducational residence halls, with a variety of living options as selected by residents themselves. The residential units have their own organizations and numerous programs are offered within each individual residence hall throughout the year. Each residence hall has professional live-in resident director/counselors and a number of student assistants. For further information contact 780-5240.

Food Services

Dining facilities may be found at three separate locations on the two campuses. In Gorham, the main University dining facility is glass enclosed, providing vistas toward the Sebago Lake region, and accommodates approximately 650 diners. Also on the Gorham campus, the University pub offers short-order fare through late evening.

In Portland, the Campus Center offers a variety of dining facilities for

large or small groups, and operates from breakfast until the evening hours. Special meals and events are held once per week in both locations, and students may use their meal program cards on either campus. For more information contact the Office of Residence Life. (780-5240).

Intramural and Recreation Programs

Both group and individual sports competition and recreational activities are available. The Gorham and the Portland gymnasias are the main facilities for free play, as well as basketball, flag football, badminton, racquetball, and other league competition sports. Programs in such areas as aerobic dance, Lifeline, and bodyshop and weightlifting are also available. For further information contact the Coordinator of Intramural and Recreation Programs, Gorham (780-5433).

Off-Campus Housing

The University maintains lists of available rooms and apartments off-campus for the benefit of students. The lists are available in the Department of Residence Life on the Gorham campus or the Office of Advising and Academic Information on the Portland campus. (780-5240 and 780-4040)

Child Care Services

The University Child Care Services serves over 400 children, from infancy to teens, in its three facilities—Portland campus, downtown Portland center, and Gorham—through a variety of programs: full day child care (7:30 a.m.-5:30 p.m.); evenings (3:00 p.m.-midnight) and weekends prearranged; after and before school; flex-care, (child care services on a block basis); infant and toddler care; summer camps; and sick child care. All programs are "child-centered," stressing learning and self-discovery, conducted by professional staff with early childhood education experience. *Reservations are encouraged.* For further information please contact USM Child Care, 96 Falmouth Street, Portland (780-4125).

Intercollegiate Athletics

The University offers the following sports for men: cross country, soccer, basketball, ice hockey and baseball. Sports offered for women include: field hockey, soccer, tennis, basketball, cross country, and softball. Golf 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 Intercollegiate Athletics for Women. As members of these organizations, student athletes have an opportunity to qualify for and participate in state, regional and national tournaments. Contact 780-5430.

Reserve Officers Training Corps

The University offers an opportunity for students to receive a commission in various branches of the U.S. Army. Commissions, as a Second Lieutenant, may be in the Reserves, National Guard, or active duty considering the preference and qualifications of the individual. Consider the leadership skills and management training you can obtain through Army ROTC. The department also offers training at military installations such as airborne, air assault, northern warfare, and jungle training. Contact 780-5255.

The Core Curriculum

Director, Core Council: Henry Amoroso, 102 Bedford St., Portland
Core Council: Amoroso, Boyle, Carper, Cassidy, Macleod, Paltrow, Rhodes, Shedletsky

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 remedial 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. The student may not use courses in his or her major department to satisfy this component.

(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 and/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, and/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, which are always taught by two or more instructors, 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)
 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)
 Successfully complete an approved MAT 100-
 level course
 Successfully complete an approved statistics
 course (MAT 120D, PSY 201D, or SOC 307D)
 Pass a locally administered examination (no credit)
 (Students in departments that do not specify
 mathematics requirements should consult
 their advisors or the Advising and Academic
 Information Office 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 Do one (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.

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

Office of Advising and Academic Information. Declared majors should consult their school, college, or department advisors.

2. Courses in a student's major may not be used to satisfy methods of inquiry/ways of knowing requirements, except that one course from a double major may be so used.
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.

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 equivalent 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 equivalent courses in each of the four areas. Equivalent courses will be determined at the time of admission and transfer evaluation. Any CLEP examination that satisfies a course approved for the Core curriculum will satisfy the Core curriculum requirement in that area. When a specific requirement cannot be satisfied by transfer credit, 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.

Basic Competence

English Composition

ENG 100C College Writing

ENG 101C Independent Writing

Quantitative Decision Making

MAT 100D College Algebra

MAT 104D Topics in Mathematics

MAT 109D Linear Systems

MAT 110D Business Calculus

MAT 120D Introduction to Statistics

MAT 131D Number Systems for Elementary Teachers

MAT 140D Precalculus Mathematics

MAT 152D Calculus A

PSY 201D Statistics in Psychology

SOC 307D Statistical Methods for Social Research

Skills of Analysis/Philosophy

PHI	101E	Introduction to Philosophy: Freedom and Determinism
PHI	102E	Introduction to Philosophy: Quest for Certainty
PHI	103E	Introduction to Philosophy: Human Alienation
PHI	105E	Introduction to Philosophy: Theories of Human Nature
PHI	106E	Introduction to Philosophy: Why Philosophize?
PHI	110E	Introduction to Philosophy: Self and Society
PHI	111E	Introduction to Philosophy: Philosophical Reading (and Writing)
PHI	112E	Introduction to Philosophy: Concepts and Consequences
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
ART	151F	Fundamental Drawing I
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	120F	Acting I Fundamentals of Acting: Movement and Improvisation
THE	121F	Acting II Fundamentals of Acting: Scene Work
THE	122F	Contemporary Dance I
THE	170F	Public Speaking
THE	222F	Contemporary Dance II
THE	135F/136F	Stagecraft I & Lab
THE	290F	Oral Interpretation

History-centered arts

ART	101G	Approaches to Art
ARH	111G	History of Art I
ARH	112G	History of Art II
MUS	100G	Music Appreciation and History
MUS	102G	Music of the Portland Symphony
MUS	103G	Introduction to Jazz
MUS	120G	History of Music I
MUS	121G	History of Music II
MUS	202G	Music in America
MUS	203G	Music in the 20th Century
MUS	205G	Chamber Music Literature
MUS	220G	History of Music III
MUS	221G	History of Music IV
THE	101G	Introduction to Drama

Humanities

Literature

CIA	283H	The Epic Hero in Ancient Literature
CIA	284H	The Tragic Hero in Ancient Literature
ENG	120H	Introduction to Literature
ENG	262H	Poetry
ENG	263H	Fiction
ENG	264H	Drama
FRE	251H	Introduction to French Literature I
FRE	281H	Masterpieces of French Literature (in English translation)
FRE	283H	Contemporary French Thinkers (in English translation)
FRE	362H	French Poetry
FRE	363H	The French Theatre
GER	281H	The German Novelle (in English translation)
GER	351H	Introduction to German Literature I
GER	352H	Introduction to German Literature II
SPA	281H	Masterpieces of Spanish Literature (in English translation)
SPA	351H	Introduction to Hispanic Literature I
SPA	352H	Introduction to Hispanic Literature II
THE	210H	Play Analysis

Other Times/Other Cultures

ANT	202I	Origins of Civilization
ANT	220I	North American Indians
ANT	222I	Peoples of the North
ANT	232I	Women in Cross Cultural Perspectives
ANT	301I	Victims of Progress: Primitive Peoples in the Modern World
ARS	124I	Patterns in Comparative Religion
CIA	285I	Classical Mythology
CIA	291I	The Golden Age of Greece
CIA	292I	Rome, from Republic to Empire
FRE	201I	Intermediate French I
FRE	202I	Intermediate French II
FRE	291I	French Civilization—Historical Approach (in English)
FRE	292I	French Civilization—Contemporary France (in English)
GEO	201I	Cultural Geography
GER	201I	Intermediate German I
GER	202I	Intermediate German II
HTY	101I	Western Civilization I
HTY	102I	Western Civilization II
HTY	131I	U.S. History to 1877
HTY	132I	U.S. History Since 1877
HTY	133I	American History I
HTY	134I	American History II
HTY	161I	Introduction African History to Partition
HTY	162I	Introduction African History Since Partition
HTY	171I	Traditional East Asia
HTY	172I	Modern East Asia
HTY	181I	Latin America I
HTY	182I	Latin America II
ITA	201I	Intermediate Italian I
ITA	202I	Intermediate Italian II
PHI	310I	History of Ancient Philosophy
PHI	320I	History of Medieval Philosophy
PHI	330I	History of Early Modern Philosophy
PHI	340I	History of Late Modern Philosophy
PHI	350I	American Philosophy
PHI	360I	Existentialism
RUS	201I	Intermediate Russian I
RUS	202I	Intermediate Russian II
SPA	201I	Intermediate Spanish I
SPA	202I	Intermediate Spanish II

Social Sciences

ANT	101J	Anthropology: The Cultural View
COM	102J	Introduction to Communications
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
POS	101J	Introduction to American Government
POS	102J	People and Politics
POS	104J	Introduction to International Relations
PSY	101J	General Psychology I
SOC	100J	Introduction to Sociology
SWO	101J	Introduction to Social Welfare

Natural Sciences

ANT	102K	Biological Anthropology (with ANT 102 Lab)
AST	100K	Astronomy
AST	103K	Astronomy Exercises/Experiences
BIO	101K	Biological Foundations
BIO	102K	Biological Experiences
BIO	105K	Biological Principles
BIO	106K	Laboratory Biology
CHY	101K	Chemistry I
CHY	102K	Introduction to Laboratory Measurement
CHY	200K	Chemistry and the Scientific Process
GEO	102K	Physical Geography
GEO	102L	Physical Geography Lab
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

COR 110 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. Prerequisite: ENG 100C and Skills of Analysis/Philosophy Cr 3.

COR 112 Conflict in the Nuclear Age

"Since people quarrel, nations are bound to fight." Is the model of interpersonal relations applicable to international politics and war? The purpose of this course will be to explore some of the ways in which the social sciences and humanities deal with the crucial issues concerning war, peace, and superpower relations in a nuclear age. The analysis will focus on (1) the roots of conflict that give rise to tensions between nations, (2) the management and control of international conflicts, and (3) a

case study of conflict in U.S.-Soviet relations. Prerequisite: ENG 100C and Skills of Analysis/Philosophy. Cr 3.

COR 113 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 metaphorical 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. Prerequisite: ENG 100C and Skills of Analysis/Philosophy. Cr 3.

COR 115 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. Prerequisite: ENG 100C and Skills of Analysis/Philosophy. Cr 3.

COR 116 The Gulf of Maine

Provides an interdisciplinary exploration of the resources of the Gulf of Maine, drawing on perspectives of the geosciences, political science, and law. The Gulf ecosystem contains a rich variety of living and nonliving resources that shape the economy and character of communities in the two countries which border it. Conflicting priorities and values attached to these resources, and demands for their use by different industries, management entities, and community interests will be examined. Prerequisite: ENG 100C and Skills of Analysis/Philosophy. Cr 3.

COR 117 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 under-

standing 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. Prerequisite: ENG 100C and Skills of Analysis/Philosophy. Cr 3.

COR 118 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 multimedia productions. Students will also acquire a vocabulary for interpreting art and music. Prerequisite: ENG 100C and Skills of Analysis/Philosophy. Cr 3.

COR 119 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. Prerequisite: ENG 100C and Skills of Analysis/Philosophy. Cr 3.

University Honors Program

Director: Jeremiah P. Conway, Honors House, 102 Bedford Street, Portland
Honors Council: Bazinet (Applied Science); Burson (Nursing); Crochet (Foreign Languages and Classics); Franklin (Art); Friedman (Law); Lajoie (student); Monsen (Sociology); Neveu (Business, Economics, and Management); O'Donnell (Education); Pollock (Geosciences)

Honors Faculty: Ashley (English), Caffentzis (Philosophy), Callender (Education), Duclos (Foreign Languages and Classics), Gavin (Philosophy), F. McGrath (English), Owens (Foreign Languages and Classics)

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 that 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	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	Honors Independent Tutorial I	(3 credits)
HON	312	Honors Independent Tutorial 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: English Composition, 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 those Honors Colloquia successfully completed 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.

HON 101 Honors Colloquium IA: The Ancient World

This course begins the four-semester sequence of introductory Honors courses. The sequence has been designed to provide Honors students with exposure to the central disciplines in the humanities and social sciences and to teach them the skills of critical analysis of texts, research, writing, and oral expression. This course examines the arts, literature, philosophy, and religions of the Ancient World with emphasis on their political, social, and economic contexts. Cr 4.

HON 102 Honors Colloquium IB: The Medieval World

This course is a continuation of HON 101, with a focus on the Middle Ages. Cr 4.

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

This is the third course in the introductory sequence. It examines the philosophical, literary, and scientific developments during the Early Modern period. Cr 4.

HON 202 Honors Colloquium IIB: The Modern Age

This course is a continuation of HON 201, with a focus on the Modern Age. 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 Honors Independent Tutorial I

During the senior year, each Honors student works directly with a faculty member in the student's major department in a year-long, in-depth study of a particular area of interest. The student engages in readings under the direction of the faculty tutor and writes a major research paper. Cr 3.

HON 312 Honors Independent Tutorial II

This course is a continuation of Honors Independent Tutorial I. 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.



Convocation

Convocation Scholar: James W. Roberts

Each year the University of Southern Maine sponsors a year-long series of lectures, debates, workshops, programs, and cultural events focused on an important contemporary theme. Previous themes have been "The City," "Changing Roles of Women and Men," "The Age of the Computer," "Peace and War in the Nuclear Age," "The Aging of America," "The Arts in Our Lives," and "The Constitution: Roots, Rights, Responsibilities." For its 1988-89 Convocation, the University community will focus on the culture and political system of the Soviet Union. And, in the two subsequent academic years, the same will be done in regard to Latin America and the Far East.

Associate Professor of Political Science James W. Roberts will serve as the Convocation Scholar during the 1988-89 Convocation. He has written about the upcoming examination of the Soviet Union, "The Soviet Union of today is undergoing an intense self-examination. For many of its citizens, this is a disturbing time, as settled ways are challenged by the promise of a still uncertain future. For ourselves, as onlookers and students, it is an exciting time to be watching; we shall surely come to a fuller knowledge of our sister super power—and we may even learn something more of ourselves in the process."

All students, faculty, and staff are encouraged to participate in Convocation by offering ideas, by supporting and sponsoring events in collaboration with the Convocation Committee, by sharing in the organizing and planning tasks, and by teaching or enrolling in courses related to the theme. It is hoped that every member of the University community and many members of the Greater Portland community will find this shared enterprise intellectually rewarding. Students are encouraged to engage in independent study and research within the framework of the Convocation theme.

For further information contact Alyce O'Brien, Executive Director for University Relations and Administrative Chair of Convocation.

International Studies Program

Director: Karen Erickson, 126 Bedford St., Portland

International Studies Council: Albee, Boyle, Crochet, Dietrich, Durgin, Faksh, Holden, Medley, Najarian, Padula, Roberts, Rogoff, Rosenthal, Schleh, Tizon

The International Studies Program is an interdisciplinary curriculum that attempts to reconcile traditional academic standards 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 today in work that is related to international affairs. The International Studies major leads to a bachelor of arts degree through the Interdepartmental Major Program in the College of Arts and Sciences.

The program of study consists of:

- 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 approaches and problems in the study of international affairs. Thus, students in International Studies choose a concentration in 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, strategy, peace, war, and ideology. A Foreign Policy Analysis background is particularly appropriate for diplomatic and other governmental work in foreign affairs. A concentration in Foreign Policy Analysis also provides the classical preparation for graduate work in international affairs and related disciplines.
- B. *International Management* This concentration emphasizes a functional approach to international affairs. The courses deal with global issues primarily of a non-strategic nature, such as socio-economic development, industry and commerce, trade, food and resources, technology, energy, the environment, and health. International Management offers a broad preparation for international business, trade, and administration.
- C. *Regional Affairs* This concentration gives attention to the importance of understanding the history, culture, and politics of a particular geographical region. USM currently offers courses in three regions for specialized study: Europe, Latin America, and Russia/Soviet Union. A regional expertise is especially relevant for work in governmental agencies, 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, though difficult role in international affairs today.

Programs and Requirements

Self-Designed Major in International Studies

Number of credits required to complete the 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 that has particular relevance for the subject matter and study of international affairs.

Required (6 credits)

POS	104J	Introduction to International Relations
ECO	201J	Macroeconomics

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
CIA	291I	The Golden Age of Greece
CIA	292I	Rome, From Republic to Empire
PHI	310I	History of Ancient Philosophy
ENG	350	Chaucer and the Medieval World

In addition, in fulfilling the University Core curriculum requirements listed below, students will take the following courses.

Other Times/Other Cultures

HTY	102I	Western Civilization II
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Social Sciences

ECO	202J	Microeconomics
ANT	101J	Anthropology: The Cultural View

OR

GEO	101J	Principles of Geography
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Quantitative Decision Making

MAT	120D	Introduction to Statistics
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Note: Students with a Concentration in International 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 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

(a) 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

(b) One of (3 credits)

POS	389	International Law and Organization
HTY	324	World Wars I and II: European War and Diplomacy
(c) 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.
(d) 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
(e) 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	376	History of Modern China
HTY	388	History of Modern Japan
HTY	384	Contemporary Africa
(f) 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
(g) Elective (3 credits)		
In consultation with the advisor, students will choose one elective from groups b,c,d,e, or f.		

B. International Management

(a) Required (12 credits)

POS	240	The Politics of Developing Nations
ECO	360	Economic Development
ECO	370	International Trade
BUS	340	Principles of Management
MAT	211	Probability

(b) One of (3 credits)

ECO	350	Comparative Economic Systems
ECO	351	Economic System of the Soviet Union
ECO	361	Case Studies in Economic Development

(c) One of (3 credits)

ECO	315	Political Economy
ECO	385	U.S. Economic Policy

(d) Electives (12 credits)

In consultation with the advisor, student will select three courses from the list below.

ANT	2021	Origins of Civilization
ANT	213	Cultural Ecology
ANT	2221	Peoples of the North
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
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
ARS	124I	Patterns in Comparative Religion
NUR	324	Cultural Diversity in Health
ITP	100	Modern Industry
MAT	212	Statistics

C. Regional Affairs

Students will select one of the following regions for this concentration:
Europe, Latin America, or Russia/Soviet Union.

1. Europe

(a) 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

(b) One of (3 credits)

POS	245	British Politics
HTY	326	History of England

(c) One of (3 credits)

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

(d) One of (3 credits)

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

(e) 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

(f) Elective (3 credits)

In consultation with the advisor, students will choose one elective from groups b,c,d, or e.

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

(a) Required (18 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
ANT	205	South American Culture History

(b) One of (3 credits)

POS	240	Politics of Developing Nations
ECO	360	Economic Development

(c) Electives (9 credits)

In consultation with the advisor, students will select three 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. Russia and the Soviet Union

(a) Required (24 credits)

HTY	317	Early Russian History
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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

(b) 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 Russia/Soviet Union may also be fulfilled by completing the Self-Designed Major in Russian and Soviet 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 Russia/Soviet Union 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.

North American Student Seminar

Each spring a select group of students from USM meets with students from the University of Western Ontario for a week of intensive discussions in Washington. The annual seminar focuses on a central issue of mutual interest and concern to Americans and Canadians. Generally the focus has been international peace and security. The seminar meets with leading representatives from Congress and the administration, universities and other research organizations, and Washington's diplomatic community. During the spring semester, USM students prepare for the seminar by doing research and writing papers on assigned topics related to the seminar they will attend. The North American Student Seminar is organized and administered by the International Studies Program, and students should contact the office of the Director of International Studies for further information.

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 International Order for the Future.

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.

Women's Studies Program

Director: Nancy K. Gish, 94 Bedford St., Portland

Women's Studies Council: Benedict, Crader, Eagan, Franklin, Gilmore, Goldstein, Holden, MacPherson, Messerschmidt, Murphy, Padula, Reno, Shedletsky, Thompson, Tizon, Watts, 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 past and on analyzing and re-thinking contemporary society. Subject matter may include, for example, the philosophy of Mary Wollstonecraft, the poetry of Phyllis Wheatley, or the history of the women's health movement. Courses may also focus on such issues as the social construction of gender, the effect of gender-biased language, inequities in work and pay, or the nature of the family. Although women are central to the subject matter of Women's Studies, feminist analysis goes beyond specific issues of gender to re-examine such topics as peace, humanity's relation to the physical world, and the role of science in society. The Women's Studies Program introduces students to new ways of thinking about women and about the world. The program offers a major leading to a bachelor of arts degree through the Self-Designed 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 Women in Cross-Cultural Perspectives. 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 social science, affirmative action and equal employment programs, education, personnel or career advising, women's agencies and programs, human services agencies, and public service.

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: 39.

The Women's Studies self-designed major consists of a minimum of 21 hours of required courses and 18 hours of Women's Studies elective or related courses.

Required Courses (select at least 21 hours)

WST	130	Introduction to Women's Studies
HTY	328	History of Women in The United States
WST	330	Feminist Research Seminar
WST	430	Comparative Feminist Theories
WST	440	Field Experience/Internship in Women's Studies

One of the following:

ANT	232I	Women in Cross-Cultural Perspective
SOC	316	Sociology of Gender
SOC	358	Sociology of Women's Work

and a choice of/or both

PHI	265	Feminist Philosophy
WST	360	Classics of Feminism

Women's Studies Elective and Related Courses (select at least 15 hours)

WST	320	Topics in Women's Studies
WST	450	Women's Studies Independent Study
ENG	285	Earlier Women Writers
ENG	295	Contemporary Women Writers

NUR	308	Women and Health
BUS	349	Women and Management
ANT	232I	Women in Cross-cultural Perspective
COM	495	Sex-related Differences in Communication
ARH	218	Women in Art
POL	201	Women and Politics
PSY	235	Psychology of Women
SOC	316	Sociology of Gender
HST	499	History of Women in Europe: 18th and 19th Centuries
SOC	358	Sociology of Women's Work
HTY	328	History of Women in the United States
PHI	265	Feminist Philosophy

Minor in Women's Studies

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 18 hours of Women's Studies courses and 6 hours of related courses.

For students interested in the minor in Women's Studies, the program offers the following concentration:

Required (15 hours)

WST	130	Introduction to Women's Studies
WST	230	Psycho-social Development of Women
WST	330	Feminist Research Seminar
WST	430	Comparative Feminist Theories
HTY	328	History of Women in The United States

and the choice of /or both (at least 3 hours)

WST	350	Feminist Ethics
WST	360	Classics in Feminism

and Women's Studies elective courses or related courses

(at least 6 hours)

WST	320	Topics in Women's Studies
WST	450	Women's Studies Independent Study
ENG	295	Contemporary Women Writers
ENG	285	Earlier Women Writers
NUR	308	Women and Health
BUS	349	Women and Management
ANT	232I	Women in Cross-cultural Perspective
COM	495	Sex-related Differences in Communication
ARH	218	Women in Art
POL	201	Women and Politics
SOC	316	Sociology of Gender
HST	499	History of Women in Europe: 18th and 19th Centuries
SOC	358	Sociology of Women's Work
HTY	328	History of Women in the United States
PHI	265	Feminist Philosophy
PSY	235	Psychology of Women

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 coordinator'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 applications 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, 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, Classics of Feminism, 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 Comparative Feminist Theories, Feminist Research Seminar, and Field Experience/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.

Summary

Year I

Core curriculum requirements

Year II

Complete Core curriculum requirements

Introduction to Women's Studies (fall)

Feminist Philosophy (fall)

Women's Studies electives (fall and spring)

Begin any minor requirements

Year III

History of Women in the United States (fall)

Classics of Feminism (fall)

one of the following:

Women in Cross-Cultural Perspective

Sociology of Gender

Sociology of Women's Work

Feminist Ethics

Women's Studies electives (fall and spring)

Continue minor requirements

Year IV

Feminist Research Seminar (fall)

Comparative Feminist Theories (spring)

Field Experience/Internship (fall and/or spring)

Women's Studies electives (fall and spring)

Complete minor and elective requirements

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.

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 its own. The course, which is interdisciplinary, focuses primarily on women in the United States. Readings range from fiction and poetry to articles in fields such as history and sociology. Particular emphasis is placed on issues of class and race as they affect women. Topics covered include feminism, work, family, religion, politics and power, sexuality, reproductivity, pornography, art, language, media and culture. 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 320 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 330 Feminist Research Seminar

This seminar will explore feminist research and methodology from an interdisciplinary perspective. Similarities and differences between feminist and traditional research, sex biases and the role of values in research, and new research paradigms will be examined. Emphasis will be on applying critical and scholarly feminist approaches to selected issues and topics related to women through involvement in a major research project. Prerequisites: ARS 130, ARS 230 or permission of instructor.

Cr 3-6.

HST 499 History of Women in Europe and America

A survey of women's roles during critical historical periods and in specific cultures will be examined with emphasis placed on a socio-cultural investigation of the feminist movement. Students will be introduced to the methods and materials of oral history and the relevance of folk sources to the study of women's history and culture.

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, nonviolence, and means of social change. Prerequisite: ARS 130 or permission of the instructor.

Cr 3.

WST 360 Feminist Classics

Feminist Classics 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 430 Comparative Feminist Theories

This comparative course focuses on five selected theories, only four of which would ordinarily be described as feminist. The first theory, conservatism, is based upon the concept of a female biological imperative as natural and inevitable. The other four theories—liberal feminism, traditional Marxism, radical feminism—build their argument both against this background of conservatism and through their on-going dialogue with each other. The practical implications of these theories for women and men will be examined within the three dimensions of work, family, and sexuality. Prerequisite: ARS 130, 230, 340 or permission of instructor.

Cr 3.

WST 440 Field Experience/Internship in Women's Studies

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 instructor.

Cr 3-6.

WST 450 Independent Study in Women's Studies

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 coordinator.

Cr 3.

College of Arts and Sciences

Dean: Dave D. Davis

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
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 (B.S.) is offered by the Departments of Chemistry, Art, Mathematics, and Music; and bachelor of music in performance (B.M.) is offered by the Music Department.

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

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 chapter 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.

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 Academic Information Department 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 chapter 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.

Academic Majors for the College of Education

The College of Arts and Sciences offers certain liberal arts majors for students in the College of Education. These are: art education (K-12); mathematics (secondary education); and music education (K-12).

In addition, liberal arts concentrations (36 credits) for students in elementary education are available in certain departments of the College of Arts and Sciences. These will be available as interdisciplinary sequences in the liberal studies major. Students should contact the Office of the Dean of the College of Education for further information.

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 or the Office of the Dean of the College of Arts and Sciences.

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.

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.

Salt Center for Field Studies

The College of Arts and Sciences, in association with the Salt Center for Field Studies, offers an interdisciplinary field study semester conducted off campus that allows students to focus their academic interests and talents on Maine as a subject matter.

Students combine theory and practice in the field as they work together to document, in words and on film, a highly traditional culture, with strong links to the past, now undergoing major changes. The interdisciplinary field semester is designed to complement coursework in a wide variety of academic majors. Students' work is published in *Salt* magazine, a quarterly cultural journalism project about Maine. The program is conducted by the resident and visiting faculty and staff of the Salt Center for Field Studies, Cape Porpoise, Maine, and is offered in the fall semester as well as during the summer session.

Application for the Field Study Semester may be made after the student has earned a minimum of 30 credit hours with a cumulative grade point average of 2.50 or better. Students may earn 15 credits for work undertaken during the fall semester and 12 credits for work undertaken during the summer session.

For further details, contact the Dean's Office, College of Arts and Sciences or Pamela H. Wood, Director of the Salt Center for Field Studies, P.O. Box 1400, Kennebunkport, Maine, 04046; telephone: (207) 967-3311.

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 121 The Religious Dimension

This course will explore the religious dimensions of our lives in a number of different ways. We will develop a personal and satisfying definition of religion, investigate the expressions of religion in the whole life, gain understanding of the experience of various religious communities, and explore our own personal identities. The focus will be through Western religious thought, a study of myths, and exploration of the perspectives on religion of Carl G. Jung. Cr 3.

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 resume 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 sexual 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 124I Patterns in Comparative Religion

This course seeks to stimulate a broadened understanding of religion through an examination of such typical religious phenomena as rites associated with birth, life-stages, death, sacred times, sacred places, myths, and religious symbolism. Course materials, including lectures, readings, and other sources, will be drawn from the major religions of the world as well as from ancient and regional traditions. Throughout the course, particular emphasis will be given to a sympathetic, rather than judgmental, examination of religious traditions. No prerequisites.

Cr 3.

ARS 223 Attitudes of Human Sexuality

The purpose of this course is to allow individuals to understand better 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. Prerequisite: ARS 123.

Cr 3.

Interdepartmental Major Program

Faculty Council: Costello, Erickson, Fithian, Rhodes, Ubans

All interdepartmental major programs are approved and administered by the Faculty Council for Interdepartmental Majors. Within these programs it is possible for a student (or a group of students), in consultation with appropriate faculty advisors, to develop and propose interdepartmental major programs to the Faculty Council. Faculty members may also propose interdepartmental majors to the Faculty Council.

Individualized Programs

Two programs are available for individual students whose academic needs cannot be met through other academic department majors.

The *liberal studies major* is a structured, generalized program in the College of Arts and Sciences for students who choose not to specialize in an academic discipline. Students interested in such an option may apply to the Faculty Council for Interdepartmental Majors at the normal time for declaring a major. Guidelines for this program may be obtained from the Office of the Dean of the College of Arts and Sciences.

The *self-designed major* allows a student to design a multi-disciplinary program not currently available through a department major. Persons wishing to pursue such an option should apply to the Faculty Council for Interdepartmental Majors for approval, normally during the student's sophomore year.

A self-designed major program must be as comprehensive as departmental majors in the College of Arts and Sciences. Coursework outside the College may be included, but the major must consist mainly of courses within the arts and sciences.

The Faculty Council meets throughout the academic year and reviews student proposals at its regularly scheduled meetings. Students may obtain applications, program descriptions, and guidelines from the Office of the Dean of the College of Arts and Sciences.

Group Contract Programs

Group contract majors offered through the self-designed major program require appropriate courses offered by program-related departments. These majors allow a number of students to be enrolled in the same program.

Biotechnology Program

Students interested in majoring in any of the following programs may obtain additional information and guidelines in the Office of the Dean of the College of Arts and Sciences or from the appropriate office indicated.

Students and faculty interested in designing and proposing group contract majors are encouraged to do so and should obtain additional information from the Office of the Dean of the College of Arts and Sciences.

Coordinator: Michael Derby, 204 Science Building, Portland.

Steering Committee: Derby, Gainey, Holmes, O'Mahoney-Damon, Rhodes, Ricci, Stebbins

The Biotechnology Program 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 which will provide students with practical experience in biotechnology.

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.

Self-Designed Major in Biotechnology

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

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)

CHY 363, 364, or BIO 406 or BIO 409, 410

Internship (12 credit hours)

Physics (9 or 10 credit hours)

2 semesters introductory physics

(PHY 121K, 122K, 123, 124 or PHY 111K, 112)

Mathematics (7 credit hours)

1 semester Calculus (MAT 152D)

1 semester Statistics (MAT 120D)

The self-designed major 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. In order to help students prepare their application for approval by the Faculty Committee for Interdepartmental Majors, five possible models are presented. Additional information may be obtained from the chair of the Department of Foreign Languages and Classics.

Self-Designed Major in Foreign Languages

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 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 321, 322, 351H, 352H, 281H

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.

Self-Designed Major in Classical Studies (Concentration in either Greek or Latin)

The minimum number of credits (exclusive of the University's Core curriculum) for the major: 36.

One language theory course or two semesters of Latin.

Language and Literature

Concentration in Greek

GRE 251 Introduction to Literature

GRE 252 Introduction to Literature

GRE 470 Independent Study

LAT 251 Introduction to Literature

LAT 252 Introduction to Literature

Civilization and Literature in Translation

CIA 283H Epic

CIA 284H Tragedy

CIA 291I 5th Century Athens

Related Courses (electives)

ARH 111H History of Art I

ARH 212 Classical Art

HTY 231 Ancient History I

HTY 232 Ancient History II

PHI 310 Ancient Philosophy

POS 289 Political & Social Thought I

Concentration in Latin

LAT 251 Introduction to Literature

LAT 252 Introduction to Literature

LAT 470 Independent Study

GRE 251 Introduction to Literature

GRE 252 Introduction to Literature

Civilization and Literature in Translation

CIA 283H Epic

CIA 284H Tragedy

CIA 292I Rome

Self-Designed Major in French Studies

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.

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

and 292I

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	242	French Revolution and Napoleon
HTY	244	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

Self-Designed Major in German Studies

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.

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 336 Leaders of the 20th Century: Churchill,
Roosevelt, Hitler

HTY 337 The Holocaust: Policy, Practice, Response

Humanities (any two)

CIA 283H The Epic Hero in Ancient Literature

CIA 284H The Tragic Hero in Ancient Literature

CIA 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 of the Faculty Council for Interdepartmental Majors.

Self-Designed Major in Hispanic Studies

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.

Spanish Language and Literature

SPA 321-
322 Composition/Conversation I & II

SPA 351H-
352H Introduction to Hispanic Literature I & II

SPA 281H Masterpieces of Hispanic Literature

SPA 470 Independent Study

History

HTY 181I-
182I Latin America I & II

Social Science (any two)

HTY 381 Latin America and the United States

HTY 383 The Society and Culture of Latin America

ANT 221 South American Indian

Humanities (select one)

ARH	311	Topics in Art History
ARH	315	Western Art (1790-1880)
PHI	275	Theories of Language

Course substitutions can be made in the electives upon prior approval of the Faculty Council for Interdepartmental Majors.

***Social Science
Self-Designed
Major***

Coordinator: Eugene Schleh, 300B Bailey Hall

The social science self-designed major is a multi-disciplinary 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 GEO 101J, GEO 102K or GEO 201, ANT 101J or ANT 103, and at least 3 courses in geography or anthropology at the 300 level or above. (21 credits)
- b. History—to include at least 21 credit hours at the 200 level or above. (21 credits)
- c. Political Science—21 credit hours as arranged with advisor
- d. Sociology—to include SOC 100J, SOC 300, SOC 305; or SOC 307D, SOC 312, or SOC 356. (21 credits)
- 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.

Program descriptions and guidelines are available in the Office of the Dean of the College of Arts and Sciences or from the chair of the Council.

***International Studies
Self-Designed
Major***

For information about the International Studies self-designed major, refer to the chapter on International Studies.

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

For information regarding the Women's Studies self-designed major, please see the chapter on Women's Studies.

Art

Chair of the Department: Michael G. Moore, 201 Academy Building, Gorham
Professors: Bearce, Franklin, Ubans; *Associate Professors:* Burk, Hewitt, M. Moore, Rakovan, Schiferl; *Assistant Professors:* Cassidy, Marasco, J. Moore, Shaughnessy

The department offers three bachelor's degrees: the bachelor of arts (B.A.), the bachelor of fine arts (B.F.A.), and the bachelor of science (B.S.). The requirements for the B.F.A. heavily involve the student in studio art courses and prepare him or her for graduate school or suitable professions. The B.S. gives the student preparation in several studio areas and professional education, and leads to teacher certification, grades K-12, in the state of Maine. The B.A. is designed to provide a broad liberal arts education and to prepare students for graduate study in allied fields. In all of the programs, the faculty strive to promote the student's creative abilities.

Specifically, the department goals are a.) to provide a broad and challenging foundations program, which will enable students to develop a self-awareness, an historical perspective, and insight into the meaning and application of creative media in the visual arts; b.) to develop the capacity for critical analysis, the ability to investigate and experiment, and to make judgments within a framework of reason; c.) to develop an art 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 understanding of 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 wishing to 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, wishing to transfer into the Department of Art from another discipline, must obtain a change of major form and submit this form with an up-to-date 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, and History of Art I & II) 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 three 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 Admissions Office or 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)

ART	141F	Fundamental Design I
ART	142	Fundamental Design II
ART	151F	Fundamental Drawing I
ART	152	Fundamental Drawing II
ARH	111G	History of Art I
ARH	112G	History of Art II

Art History Requirements (9 credits)

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

Studio Art Requirement (18 credits)

Electives (41 credits)

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

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)

ART	141F	Fundamental Design I
ART	142	Fundamental Design II
ART	151F	Fundamental Drawing I
ART	152	Fundamental Drawing II
ARH	111G	History of Art I
ARH	112G	History of Art 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

6 credits from each of the following two categories: two-dimensional: painting, printmaking, photography; three-dimensional: ceramics, sculpture

24 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.

Electives (14 credits)

All B.F.A. matriculants are required by the end of their sophomore year to

take the beginning level courses in ceramics, drawing, painting, photography, printmaking, and sculpture.

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.

Bachelor of Science in Art Education

The minimum number of credits (exclusive of the University's Core curriculum and electives) required for the major: 80.

Art Foundation (18 credits)

ART	141F	Fundamental Design I
ART	142	Fundamental Design II
ART	151F	Fundamental Drawing I
ART	152	Fundamental Drawing II
ARH	111G	History of Art I
ARH	112G	History of Art II

Art History Requirement (9 credits)

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

Studio Art Requirement (27 credits)

ART	231	Ceramics
ART	261	Painting
ART	271	Photography
ART	281	Printmaking
ART	291	Sculpture
ART		Elective
ART		Elective
ART		Elective
ART		Elective

Professional Education Requirement (26 credits)

AED	221	Practicum in Art Education
AED	321	Principles and Procedures in Art Education
EDU	200	Studies in Educational Foundations
HRD	333J	Human Growth and Development
EDU	324	Student Teaching (6 Cr course)
EDU	324	Student Teaching (6 Cr course)
AED	421	Seminar in art education

Electives (6 credits)

Minimum Grade Point Average

A 2.5 minimum G.P.A. must be maintained in order to register for AED 321, AED 421, EDU 324, and in order to graduate from the program.

Liberal Arts Requirement

40 credit hours in liberal arts are required, including the University Core curriculum. These must be non-Art Department 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 History of Art I

Examination and discussion of the early epochs of art from prehistoric cultures through the Renaissance. Special attention is directed to the relationships of historical and theoretical knowledge to creative expression. Divergent viewpoints of the art historian, the

critic, and the artist are explored. The first half of an overview of the visual arts emphasizing the interrelationships of cultural values and the forms of art. Prerequisite: preference given to candidates for matriculation in the Department of Art, or those with permission of the instructor.

Cr 3.

ARH 112G History of Art II

A continuation of ARH 111G from the Renaissance through the 20th century. In both semesters of the course, examples of architecture and sculpture, paintings, etc. are used as the basis of inquiry. Prerequisite: preference given to candidates for matriculation in the Department of Art, or those with permission of the instructor. 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 217 Oriental and Non-Western Art

A survey of some of the major styles in Asian art (India, China, Japan) followed by an overview of the art of tribal Africa and Indian art of the Americas. The emphasis will be on an understanding of the art through the cultural factors that influenced its development. Prerequisite: none. 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, video, tapes, 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 Western Art (1790-1880)

A study of the major movements of the first half of the modern era covering the period between 1790-1880. Prerequisite: ARH 112G. Cr 3.

ARH 316 Modern Art

A continuation of ARH 315 covering the period from 1880-1950 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 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**

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

ART 142 Fundamental Design II

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 hand-building 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. 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. Prerequisite: permission of instructor and Art Department chairman. 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. Prerequisite: permission of instructor and Art Department chairman. 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. Prerequisite: 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. Prerequisite: ART 351 and 352. Cr 3/3.

ART 461/462 Advanced Painting

Continuation of Intermediate Painting. Emphasis on individual concepts and personal expression. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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 reading, writing, 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. 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. Prerequisite: 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. Prerequisite: 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 2.

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. Prerequisite: permission of instructor and Art Department chair.

Cr 1 to 6.

Biological Sciences

Chair of the Department: Patricia M. O'Mahoney-Damon, 206 Science Building, Portland

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

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 level to the biotic community. Other biology courses may be elected to suit individual interests and needs. The required courses in chemistry 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 courses is required for the major.

All of the following are required:

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

One course (lecture and laboratory combination) from each of the following areas:

AREA 1: Organismal Biology

BIO	205	Comparative Vertebrate Anatomy
BIO	231	Botany
BIO	304	Embryological Development
BIO	351, 352	Invertebrate Zoology and Survey of Invertebrates

AREA 2: Community-Ecosystems

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

AREA 3: Functional Biology

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	Cell and Molecular Biology
PLUS		
BIO	410	Cell and Molecular Biology Laboratory
OR		
BIO	406	Molecular Biology and Genetics

The biology major must also satisfactorily complete all of the following:

CHY	113, 114	Principles of Chemistry I and II and Laboratory
CHY	115, 116	Laboratory
CHY	251, 252	Organic Chemistry I and II and Laboratory
	253, 254	
MAT	120, 220	Statistics
MAT	152	Calculus A
PHY	111K, 112K	Elements of Physics I and II
OR		
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; 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.

BIO 019 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. Associate degree credit only. 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. Prerequisite: BIO 101K or concurrently. 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. Three hours. Cr 1.5.

BIO 107 Biological Principles II

An introduction to the structure, function, and ecological relationships of living organisms. Prerequisites: grade 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. Three hours. Cr 1.5.

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. Prerequisite: 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

The study of functional anatomy and physiology of the human. Prerequisite: grade of C or higher in BIO 105K. 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. Prerequisite: grade of C or higher in BIO 105K and BIO 106K. Cr 4.5.

BIO 241 Plant Physiology

A study of the physiological activities of plants, and their growth and development as influenced by internal and external factors. Prerequisites: BIO 107, or BIO 231, one year of college chemistry or permission of the instructor. Cr 3.

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. Prerequisites: BIO 281 or concurrently. Cr 2.

BIO 291 Ornithology

The basic biology of birds: life histories, migration, behavior, and economic importance, with emphasis on species found in Eastern North America. (Students supply their own binoculars or spotting scopes.) Prerequisite: grade of C or higher in BIO 105K. Cr 3.

BIO 301 Genetics

A study of the molecular basis of heredity and methods of genetic analysis. Lecture: 3 hours/week; discussion 1 hour/week. Prerequisite: 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. Prerequisite: 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. Prerequisites: BIO 331 or concurrently. Cr 3.

BIO 333 Ichthyology

The systematics, structure, natural histories, and economic importance of fishes, with emphasis on species of the northeastern U.S. Prerequisites: 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. Prerequisites: 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. Prerequisite: 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 105K. Cr 2.

BIO 352 Survey of Invertebrates

Laboratory experience on the anatomy, physiology, and behavior of invertebrate animals. Prerequisite: BIO 351, or concurrently. 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 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. Cr 2.

BIO 403 Comparative Physiology

Physiological and biochemical basis of environmental adaptation. Prerequisite: grade of C or higher in BIO 107; one year of college chemistry; 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. Cr 2.

BIO 406 Molecular Biology and Genetics

An integrated lecture-laboratory course exploring modern molecular approaches in genetics, developmental biology and cell physiology, and providing direct experience in areas such as protein isolation and characteri-

zation, gene cloning, and analysis of membrane function. Prerequisite: CHY 251 and a grade of C or higher in BIO 301, or permission of the instructor. Cr 3.

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 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.

Chemistry

Chair of the Department: Richard Stebbins, 360 Science Building, Portland
Professors: Ricci, Smith, Sottery; *Associate Professors:* Rhodes, Stebbins; *Assistant Professor:* Newton

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 two tracks leading to baccalaureate degrees (B.A. in chemistry or a 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 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 candi-

date 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 University's Core curriculum) required for the minor: 17. The minor consists of CHY 113, 114, 115, 116, 231, 232, 251 and 252.

Biotechnology

The Department, in conjunction with the Department of Biological Sciences, offers a biotechnology program. 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.)

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 review 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: 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 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 presentation of topics of chemistry additional to those presented in CHY 113. This course is designed to provide a solid foundation for all further studies in chemistry and is a prerequisite for all upper-level chemistry courses. Prerequisite: 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: grade of C or better in CHY 114. Corequisite: CHY 115. Cr 1.

CHY 200K Chemistry and the Scientific Process

Chemists believe that all matter is composed of invisible particles (atoms and molecules) that give matter its visible characteristics. What are the properties of these particles? How do chemists detect them and learn their properties? In this course, we will examine the chemist's picture of nature and the experimental evidence on which it rests. We will also use chemistry to show that science is not merely a body of knowledge, but rather a form of thinking that leads to an increasingly coherent picture of nature. Topics will include atoms, molecules, states of matter, chemical reactions, and energy transfer. Three one-hour lectures and one three-hour laboratory per week. Pre-

requisite: Completion of all the Core curriculum basic competence requirements: English Composition, Quantitative Decision Making, and Skills of Analysis/Philosophy. Cr 4.

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. The preparation and isolation of compounds by the Friedel-Crafts and Grignard reactions will be performed. The latter part of the semester will comprise an introduction to organic qualitative analysis. 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

A continuation of the experiments begun in CHY 252 on 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 experimental and theoretical. Finally we will examine commercial polymers and polymer technology. Prerequisite: 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: 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, and nucleic acids; enzyme kinetics and mechanisms; nucleic acid replication and transcription; protein synthesis and the genetic code; and metabolism and energy conversion. This one-semester course provides a complete survey of the major areas of biochemistry. Three lectures per week. Prerequisite: 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 and nucleic acids; and measuring enzyme action, nucleic acid dynamics, and metabolic activity. Techniques include UV and visible spectro-

photometry, ion-exchange and gel chromatography, and centrifugation. One hour lecture and three hours laboratory per week. Prerequisite: 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; conformational analysis of biomolecules; genetic regulation in procaryotes and eucaryotes; viruses; genetic engineering; molecular basis of immunity, membrane transport, hormone action, nerve action, and motility; and origin of life. Three lectures per week. Prerequisite: 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, handling and detecting radioisotopes, gel electrophoresis, radioimmunoassay, and computer graphics. One hour lecture and three hours laboratory per week. Prerequisite: 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: grade of C or better in CHY 231, MAT 152D, and PHY 123. Cr 3.

CHY 372 Physical Chemistry Laboratory I

Experiments illustrative of theoretical principles pertinent to chemical processes, such as thermochemistry, absorption phenomena, and physical properties of gases and liquids. One recitation and three laboratory hours per week. Prerequisite: grade of C or better in CHY 232. Prerequisite or corequisite: CHY 371. Cr 2.

CHY 373 Physical Chemistry II

Additional principles of theoretical chemistry: reaction kinetics, surface chemistry 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 eluci-

dation of fundamental chemical phenomena and to the measurement of certain atomic and molecular parameters. Topics include absorption and emission spectroscopy in the ultraviolet, visible and infrared regions; chromatography; electrochemistry; mass spectrometry; and magnetic resonance. Two lectures per week. Prerequisite or corequisite: 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 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.

Communication

Chair of the Department: Leonard Shedletsky, 218 Bailey Hall, Gorham
Associate Professor: Shedletsky; *Assistant Professors:* Cojuc, Hanisko, Kivatisky, Lasky, Lockridge

The development of communication understanding and skills, like communication itself, is a continual process. The study of communication involves the examination and exploration of processes by which verbal and/or nonverbal information is transmitted from one information processing system to another, the physical and social-psychological factors that affect the transmission and reception of the messages, and the consequences of feedback on the systems. The systems could be individuals, groups, organizations, societies, cultures, or cybernetic mechanisms. During human transactions, symbolic information such as words and behaviors are transmitted and processed by the participants. Machine-based communication focuses on the transmission and processing of electronic data. The Department of Communication emphasizes the study of human transactions in its coursework. However, students may focus their degree programs on other areas of communication theory by supporting their program with courses from appropriate departments, schools, or colleges within the University.

Programs and Requirements

Bachelor of Arts

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 36.

Students seeking to major in communication should: 1) complete COM 102J, Introduction to Communication, plus two other communication courses required in the major with a grade of B or better; 2) have an overall 2.0 cumulative GPA with a minimum of 24 credit hours in courses 100 level or above; 3) plan to take at least two academic years to complete the degree program after taking COM 102J, Introduction to Communication.

In addition to COM 102J, Introduction to Communication, all minors will take one course from each of the following categories A through E:

- A) COM 265 Intrapersonal Communication or
COM 275 Theories of Language
- B) COM 272 Persuasion
- C) COM 280 Mass Media and Human Interaction
- D) COM 330 Interpersonal Communication Theories or
COM 340 Small Group Communication
- E) COM 495 Senior Seminar

Majors must complete at least 2 courses from categories A through D before proceeding in their coursework. When two of the categories (A through D) have been completed, students may begin to take the 6 additional elective communication courses required for the major. Senior Seminar; COM 495, should be among one of the last courses to be completed. The following distribution must be used in making course selections:

2 of the courses must be 200-level or above

3 of the courses must be 300-level or above

1 course must be at the 400-level

all 400-level courses require junior standing

Students may take any of the following as general electives, but they will not be included in the 36 hours required for the major:

COM	150	Business Communication
COM	171	Interpersonal Communication
COM	430	Internship
COM	491	Independent Study

In order to graduate, majors must have received a grade of C or better in all required courses and have an overall 2.5 cumulative average in the major.

Minor in Communication

Students seeking to minor in Communication should:

- 1) Complete COM 102J, Introduction to Communication, with a B or better.
- 2) Have an overall minimum 2.0 cumulative GPA with a minimum of 24 credit hours.

In addition to COM 102J, Introduction to Communication, all minors will take one course from each of the following categories, A through E:

- A) COM 265 Intrapersonal Communication or
COM 275 Theories of Language
- B) COM 272 Persuasion
- C) COM 280 Mass Media and Human Interaction
- D) COM 330 Interpersonal Communication Theories or
COM 340 Small Group Communication
- E) COM 495 Senior Seminar

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. Minimum grade of B required in this course as prerequisite to upper level courses. Cr 3.

COM 150 Business Communication

A lecture-discussion course in business communication, emphasizing industrial, managerial, and labor communication. Investigation of theory, models, nets, barriers to communication, and other topics, including basic methods and techniques of internal business communication. Cr 3.

COM 171 Interpersonal Communication

An experiential learning-based course designed to acquaint the student with the elements of interpersonal communication, its

basic nature and function. The course involves a study of the potential of human communication; with applications to the problems of misunderstanding and their remedy. Prerequisite: COM 102J with minimum grade of B or permission. 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 pro-social 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 with minimum grade of B or permission. Cr 3.

COM 250 Business and Professional Interviewing

Conducting effective interviews is an essential component of a successful career in business, government, and education. This skill is cru-

cial to any professional who manages the work of other people. This course will aid students in applying theoretical concepts and developing communication skills essential to interviewing. Prerequisite: COM 102J with minimum grade of B or permission. 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 communication. Prerequisite: COM 102J 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 with minimum grade of B or permission. 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. Prerequisites: COM 102J with minimum grade of B, any PHI 100 level course, 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 with minimum grade of B or permission. Cr 3.

COM 294 Television Processes

The general 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 used in magazine and television advertising, political photographs, documentary images, and other relevant forms. 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. Cr 3.

COM 295 Communication Development in Children

This course will examine the structural and the functional development of children's communication behavior. Syntactic, semantic, and pragmatic aspects of communication development will be explored from both learning and acquisition theory perspectives. This course includes a final project of the student's creation. Freshmen must have instructor's permission. 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 with minimum grade of B or permission. 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 conduct 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 with minimum grade of B or permission. 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 with minimum grade of B or permission. Cr 3.

COM 340 Small Group Communication

A discussion-participation course designed to familiarize students with the theories and techniques of small-group communication. Students will examine role behavior, group norms, conflict, group development, decision-making, communication flow, and other variables relevant to small-group interaction. Prerequisite: COM 102J with minimum grade of B or permission. 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: junior or senior standing. Cr 3.

COM 390 Organizational Communication

A lecture-discussion course with a practical field study required. The class will examine factors relevant to communication within organizations and will discuss such topics as organizational roles, information flow, decisionmaking, leadership, and the nature of

organizational change. Prerequisite: COM 340 or permission of the instructor. 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 minimum grade of B or permission. 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: 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: a precise definition of the project and director's consent. Pass/Fail only. Cr var.

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. 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. Prerequisite: COM 280 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. Enrollment by permission of faculty sponsor only. Cr 3-6.

**COM 495 Theories of Communication:
Seminar**

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.

Criminology

Coordinator: Piers Beirne, 120 Bedford Street, Portland

The bachelor of arts in criminology is a four-year degree offered by the Department of Sociology. 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.

***Programs and
Requirements***

Bachelor of Arts

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 37.

The criminology major consists of 28 hours in required courses and 9 hours of sociology 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	215	Criminology	3
CRM	216	White Collar Crime	3
SOC	205	Methods of Social Research	4
CRM	301	Criminological Theory	3
CRM	302	Punishment and Discipline	3
CRM/			
SOC	317	Gender and Crime	3
SOC	336	Law and Society	3
SOC	375	Deviance	3
CRM	401	Comparative Criminology	3
			<hr/> 28 hours

Elective Courses				9 hours
CRM	217	Crime in Maine		3
SOC	300	Sociological Theory I		3
SOC	301	Sociological Theory II		3
SOC	310	Social Change		3
SOC	312	Class and Inequality		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 Sociology		3
SOC	353	Social Movements		3
SOC	355	Social Structure and Politics		3
SOC	357	Bureaucracy in Modern Society		3
SOC/				
CRM	373	Pornography and Violence		3
SOC	374	Mental Health and Illness		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) Methods of Research (fall or spring) White Collar Crime (fall or spring)	
III	Criminological Theory (fall or spring) Gender and Crime (spring) Law and Society (spring) Deviance (spring)	Electives (fall or spring)
IV	Punishment and Discipline (fall) Comparative Criminology (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, be in good standing, 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 for freshmen and sophomores, 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	215	Criminology	3
CRM	216	White Collar Crime	3
SOC	205	Methods of Social Research	4
CRM	301	Criminological Theory	3
			<hr/> 13 hours

Electives—Two Courses (6 hours)

CRM	340	Criminal Law
CRM	401	Comparative Criminology
CRM	390	Independent Study
CRM	350	Special Topics
CRM	302	Punishment and Discipline
CRM	317	Gender and Crime
CRM	373	Pornography and Violence
SOC	336	Law and Society
SOC	374	Sociology of Mental Health and Illness
SOC	375	Sociological Perspectives on Deviance

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.

Internships and Work Experience

The Department of Sociology has begun a new and expanded internship and work experience program for criminology majors. 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 or work experience placement are encouraged to meet with the internship coordinator.

Required Courses

CRM 215 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 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.

Cr 3.

CRM 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 205 Methods of Social Research

Conceptualization and research design, data collection and analysis, logic of inquiry, and research techniques. Includes one hour per week of laboratory exercises. Prerequisite: SOC 100J or permission of instructor.

Cr 4.

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. Offered spring semesters. Prerequisite: SOC 300 and CRM 215. Cr 3.

CRM 302 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 301. 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 specifically

on how liberal, Marxist, radical, and socialist feminists have analyzed gender as related to crime. Prerequisite: CRM 215 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: SOC 100J 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: SOC 100J 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. Offered spring semesters. Prerequisite: CRM 301 and CRM 302. 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 215. Cr 3.

SOC 300 Sociological Theory I

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. Prerequisite: SOC 100J and two other SOC courses, or permission of instructor. Cr 3.

SOC 301 Sociological Theory II

An investigation of contemporary sociological theory. Traces descent of the classical statements through to the present and identifies both linkages and discontinuities in sociological analysis. Attention is also given to the socio-cultural settings within which various schools of sociological theorizing presently flourish. Prerequisite: SOC 300 and two other additional SOC courses, or permission of the instructor. Cr 3.

SOC 310 Social Change

Analysis of sociocultural factors related to social change and the dynamics of the change process. Prerequisite: SOC 100J or permission of instructor. Cr 3.

SOC 312 Class and Inequality

A systematic assessment of structured social inequalities in wealth, power, and status in industrialized societies. Emphasis is placed on assessing social policies employed to reduce, ameliorate, or sustain such inequalities. Prerequisite: SOC 100J or permission of instructor. Cr 3.

SOC 315 Self and Society

A sociological examination of theory and research in major areas relating personality and social systems; attitudes and behavior; socialization; social perception; bureaucratic structure and personality; etc. Emphasis on issues involved in relating two theoretical levels of analysis. Prerequisite: SOC 100J 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: SOC 100J 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 215 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 Sociology of Urban Life

A descriptive and analytical approach to the study of city life. Emphasis is placed on environment, social organization, the ecological processes, population areas, housing and maladjustment. Prerequisite: SOC 100J or permission of instructor.

Cr 3.

SOC 353 Social Movements

The rise and development of social movements emphasizing structuring and institutionalization, social movements, and socio-political change. Prerequisite: SOC 100J or permission of instructor.

Cr 3.

SOC 355 Politics and Society

Possibilities and limitations of political democracy in industrial, bureaucratic society. Capitalism and socialism, their underlying ideologies, and the resulting political structures will be contrasted. Emphasis on current American politics with comparative perspective when relevant. Prerequisite: SOC 100J or permission of instructor.

Cr 3.

SOC 357 Bureaucracy in Modern 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: SOC 100J or permission of instructor.

Cr 3.

SOC/CRM 373 Pornography and Violence

The course provides a sociological analysis of pornography. Its focus is the feminist debate on pornography. 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: SOC 100J 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: SOC 100J 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.

Economics

Coordinator: Robert C. McMahon, 227 Luther Bonney, Portland

The undergraduate program in economics is designed to prepare students broadly for careers such as civil service, law, management, public affairs, and labor relations. Economics is a social science and as such must be studied in the perspective of a broad training in the liberal arts and sciences. Many students who plan to attend graduate and professional schools will find the undergraduate economics program to be valuable training for advanced academic work. Within the economics program, courses are available in such fields as: microeconomic analysis, money and banking, macroeconomic analysis, international trade, comparative economic systems, public finance, and economic development.

Programs and Requirements

Bachelor of Arts

The minimum number of credits (excluding the University's Core curriculum) required for the major: 36.

Students interested in receiving a bachelor of arts degree in economics may not take more than 42 hours of economics courses or 21 hours of business courses for credit toward a bachelor of arts degree.

Students in this program are required to take MAT 110D, MAT 120D, and POS 101J. Successful completion of either of the mathematics courses and of the POS 101J course will satisfy parts of the Core curriculum requirement.

In fulfilling the Core curriculum social science requirement, students may not take an ECO course. Students who fulfill the English Composition Competency requirement of the Core curriculum without earning academic credit must complete three credits of ENG or PHI electives.

Requirements in Economics and Business (36 credits)

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 and HTY 338	

General Electives (41)

An economics minor and a more math-oriented economics major are offered by the School of Business, Economics and Management.

ECO 201J Principles of Macroeconomics

An analysis of the basic characteristics, institutions, and operational activities of a modern market economy which is involved in the transformation of scarce economic resources into the goods and services demanded by consumers. Topics discussed include inflation, unemployment, government monetary and fiscal policy to achieve 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.

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. Prerequisite: 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 productivity analysis, market structure, and the theory of public goods and market failures. Prerequisite: 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. Primary emphasis will be placed upon optimization theory and techniques for solving systems of simultaneous equations. These tools will be developed within the framework of economic models. Prerequisite: ECO 201J, ECO 202J; MAT 109D and 110 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. Topics covered include: the bivariate linear regression model, heteroscedasticity, multicollinearity, serial correlation of errors, and two-stage least squares. Econometric forecasting and simultaneous equation estimation will be discussed. Prerequisite: 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. Prerequisite: ECO 201J, ECO 202J, and junior standing. Cr 3.

ECO 315 Political Economy

The course provides an overview of various perspectives on the U.S. economic system, its dynamics, problems, and its relation to the political sphere. Topics treated include: inequality and discrimination; crisis and state intervention; growth and the environment; military spending, productivity and growth; the U.S. and the world economy; and policies for the future. Prerequisite: 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, labor markets, 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. Prerequisite: ECO 201J, ECO 202J, and junior standing. Cr 3.

ECO 330 Urban Economics

This course seeks to introduce the study of urban economics through a three phase approach. Phase one provides a conceptual and historical background for analyzing the urban economy. Phase two outlines basic theoretical models of urban spatial structure, land use, transportation needs, demographic change, economic activity and employment

analysis linking urban economics to the content of micro and macro economics courses. Phase three applies the tools of analysis developed in part two and the background presented in part one to several of the most urgent urban problems of the 1980s. Prerequisite: 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 macro-economics. Prerequisite: ECO 201J, ECO 202J, and junior standing. Cr 3.

ECO 351 Economic Systems of the Soviet Union

A study of the development, institutions, and structure of the Soviet economy. Emphasis on current theories and problems of central planning. 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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; federal debt. Prerequisite: 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. Topics including the proper role of government, determinants of productivity change, domestic and foreign investment, and foreign competition are examined as sources of problems. Free market, traditional monetary and fiscal, as well as new "industrial" policies are considered as potential solutions. Prerequisite: 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.

English

Chair of the Department: Kenneth Rosen, 411 Luther Bonney, Portland
Professors: Gish, Jacques, Plante, Rosen, Slavick; *Associate Professors:* Abrams, Ashley, Benedict, Burke, Carner, Carper, Coffin, McGrath, E.C., Reuter, Selkin; *Assistant Professors:* Gilmore, Peters, Rusch, Schaible; *Instructors:* McGrath, B., Walker

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 understanding of language is fundamental to an understanding of what we do, and the quality of language in a society determines and reflects its moral and political condition.

The English major serves those interested in preparing for any profession or vocation where an understanding of experience is important, from the law and medicine to social work and politics. The range of English courses is large, and will prepare the student to think and write clearly and creatively, talents vital to success in any field. For information and counsel regarding the major or appropriate courses for non-majors, students should visit English offices in Gorham (200 Bailey Hall) or Portland (411 Luther Bonney Hall).

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. The English major curriculum is designed to assure that the student has a familiarity with many of the outstanding literary achievements of Western culture, a knowledge of how the language has developed, and a sensitive appreciation of works by the great representative writers and critics in major periods of English and American literature. Elective and independent study courses will permit the student to go more deeply into subjects of personal interest, including creative expression.

While the Department does not require courses in other disciplines,

majors are strongly advised to develop a reading proficiency in a foreign language and to elect or satisfy Core requirements with History of Western Civilization I and II (HTY 101I and 102I), History of England (HTY 261), a course in American history (HTY 131I, 132I, 133I, or 134I), a lower-level philosophy course (PHI 101E to 111E), one or more history of philosophy courses (PHI 310I, 320I, 330I, 340I, 350I, 360I), an art course (ART 101G, ARH 111G or ARH 112G), a music course (MUS 100G, 120G, 121G), and one or more theatre courses (THE 101G, 340, 341, 361, or 362).

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.

1. ENG 100C or 101C or waiver; ENG 120H (0 credits toward major)

A student may, with an advisor's approval, substitute the third Introduction for Majors course, or a second Classical and Biblical Backgrounds course for ENG 120H.

2. Introduction for Majors (6 credits required)

ENG 262H Poetry (required of all majors)

ENG 263H Fiction

ENG 264H Drama

Majors who do not take the Fiction course (263H) or the Drama course (264H) 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 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 major figures seminar.

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 figure courses other than Shakespeare also fulfill Periods of Literature requirements.

9. Electives (credits in 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 favor of an interdepartmental 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. 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. English majors may, with their advisor's approval, substitute a third genre course (ENG 263H or 264H) or a second Classical and Biblical Backgrounds course for ENG 120H.

The Honors Degree in English

For a B.A. degree in English with honors, a student must achieve a B+ or better average, and he or she must successfully complete a seminar where a major paper is required (or a department-approved Independent Study course if a suitable seminar is not being offered).

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 (260 and above) 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 be selected from those numbered 260 to 369, one from 370 to 398); 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 offices.

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, and to examine pamphlets and books on the subject, in the English office at Gorham.

Students interested in writing and in developing research skills may wish to consider the interdisciplinary field study semester offered by the College of Arts and Sciences in association with the Salt Center for Field Studies (see the College of Arts and Sciences section of this catalog).

English majors are encouraged to apply for semester or year-long exchanges in English departments at King Alfred's College, Winchester; and 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. To complete the course successfully, the student must pass a departmental exit examination. The exit examination is an integral part of the course; it may not be taken as a waiver examination. Passing the departmental examination does not, however, guarantee that the student will pass the course. Each instructor has his or her own standards. Students may not take both ENG 100C and 101C for credit. This course cannot be used to satisfy a humanities requirement. Prerequisite: writing proficiency. Every year. Cr 3.

ENG 101C Independent Writing

A course especially designed for the mature student who has been well prepared in writing by high school or previous experience and

who has the discipline to work independently. The course is conducted primarily in individual weekly conferences, though classes meet occasionally. Independent Writing focuses on problems of style, presentation, and minor mechanical difficulties. To complete the course successfully, the student must pass a departmental exit examination as well as satisfy requirement. 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 262H 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 263H 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 264H 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 meanings, 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 manuscript of high-quality

work will be the basis for the course grade. Prerequisites: ENG 301 and 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. Prerequisites: THE 101G and THE 361 or 362 or 363. This course is also listed as THE 335. 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

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 410 Independent Study in Journalism

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 283 The Epic Hero in Ancient Literature

Intensive readings in English translations of *Gilgamesh*, *Iliad*, *Odyssey*, *Argonautica*, *Aeneid*; discussion, papers. Cr 3.

CLA 284 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.

CIA	291I	The Golden Age of Greece
CIA	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
SPA	281H	Masterpieces of Spanish 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. 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.

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 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*. 2 year cycle. Cr 3.

ENG 430 Independent Study in Linguistics

Cr var.

ENG 431 Seminar in Linguistics

An advanced course focusing on specialized problems in language study, including Old English. Emphasis is on applying various critical and scholarly approaches to important, limited subjects. 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). 2 year cycle. Cr 3.

ENG 440 Independent Study in Criticism

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 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 inad-

equacy, alienation, and paranoia; self-deceit; varieties of ignorance and cowardice; the moral insight afforded the artist; violence as a mode of self-discovery. Students are responsible for a term paper, a classroom report, and weekly review of some critical article. 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. Students are responsible for a term paper, a classroom report, and a weekly review of some critical article. 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

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*. HON 102 The Medieval World satisfies the English Department requirement for this course. 3 year cycle. Cr 3.

ENG 351 Chaucer and the Medieval World

An exploration of Chaucer's historical, philo-

sophical, 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

Cr var.

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.

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

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.

ENG 455 Independent Study in Renaissance Literature

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.

include tragedies and comedies. (ENG 360 alternates fall-spring each year. ENG 361 alternates spring-fall each year.) Each course: Cr 3.

ENG 460 Independent Study in Shakespeare

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

We will read and discuss a sampling of literary works written from the Restoration through the dawn of Romanticism (a period known as the Age of Exuberance). The reading list will be adjusted each term, in part to reflect the students' special interests, but authors likely to be included are Dryden, Swift, Pope, Dr. Johnson, Charlotte Lennox, and Fanny Burney. 2 year cycle. Cr 3.

ENG 366 Restoration and 18th-Century Drama

A study of Restoration and early 18th-century drama with emphasis on innovations in the post-Elizabethan theatre and on changing definitions of the tragic and comic will include Davenant, Dryden, Otway, Etherege, Shadwell, Cibber, Wycherley, Congreve, Farquhar. 3 year cycle. Cr 3.

ENG 369 The Earlier English Novel

The principal novelists from Defoe through Smollett and Burney. 3 year cycle. Cr 3.

ENG 370 Fiction of the Romantic Period

The novels of Jane Austen; readings in Maturin, Peacock, Edgeworth, Lewis, Godwin, Mary Shelley, Scott. 2 year cycle. Cr 3.

ENG 371 Major Romantic Writers

A study of the major British poets and essayists of the Romantic period (approximately 1785-1832) and of the nature of the Romantic movement. Readings selected from among Blake, Burns, Wordsworth, Coleridge, Keats, Byron, Shelley, Lamb, DeQuincey, Beddoes, Hunt, Peacock, etc.; also Mary Shelley's *Frankenstein*. 2 year cycle. Cr 3.

ENG 465 Independent Study in the Neoclassical Period

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 Cr var.

ENG 471 Seminar in Romantic Studies
An advanced course focusing on individual writers or particular literary themes or prob-

lems. 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 Rosettis, 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 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 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.

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

Cr var.

ENG 491 Seminar in Modern British Literature

An advanced course focusing on individual writers or particular literary themes or prob-

lems. 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 experi-

mental: pursuing original research, testing new alignments of figures or materials, or trying out courses before including them in the department curriculum.

Foreign Languages and Classics

Chair of the Department: Lucia A. diBenedetto, 518 Luther Bonney Hall, Portland

Professors: Crochet, Duclos; *Associate Professors:* Dalvet, di Benedetto, Lepelley, Rolfe, Ubans; *Assistant Professors:* Kinsella, Rosenthal, Suscavage

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, and Hispanic studies. Also classics, French, German, 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. 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

Beginner 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.

It is the policy of the Department that a student may receive 6 credits each, but no more for the elementary and intermediate levels. The courses can be taken in any combination. (This does not apply to students in FRE 107-108.) Elementary level: any two courses from 101, 102, 103, or 105. Intermediate level: any two from 201, 202, or 206.

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.

Language Laboratory

The language laboratory is located on the Portland campus in Payson Smith Hall, Room 203, and is open every weekday from 9 a.m. to 3 p.m. Students enrolled in beginner's or 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, and Spanish 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 in Luther Bonney 411.

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.

Core Course (to be announced by the Department)

Language

- FRE 321 French Composition/Workshop in Writing French
- FRE 323 French Conversation/Workshop in Speaking French
- FRE 305 Phonetics

Civilization

- FRE 291I Civilization, historical approach

OR

- FRE 292I Contemporary France

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 group contract major 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 majors are offered:

Foreign Languages

Classical Studies (concentration in either Greek or Latin)

French Studies

German Studies

Hispanic 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 291I

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

Spanish Minor

SPA 321, 322; 351, 352

CLA 283H The Epic Hero in Ancient Literature

Intensive readings in English translations of *Gilgamesh*, *Iliad*, *Odyssey*, *Argonautica*, *Aeneid*; discussion, papers. Prerequisite: sophomore standing. Cr 3.

CLA 284H The Tragic Hero in Ancient Literature

Intensive reading of selected plays in English Seneca; discussion, papers. Prerequisite: sophomore standing. Cr 3.

CLA 285 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 291I The Golden Age of Greece

The literature, history, politics, philosophy, art, and architecture of the fifth century B.C. with particular attention to the achievements of Athens. Lectures, discussion, papers, 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.

SPA 281H Masterpieces of Spanish Literature

The study of fiction, poetry, and essays representative of Hispanic literature of the 19th and 20th centuries. No knowledge of Spanish is necessary. 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

Continuation of GRE 101. 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

Continuation of LAT 101. 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

FRE 101 Beginning French I

Beginner's course in French. 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.

FRE 102 Beginning French II

Continuation of FRE 101.

Cr 4.

FRE 103 Review of Elementary French

Elementary French for students with some previous study of the language who feel the need for a refresher course before entering FRE 201I.

Cr 3. (With lab, Cr 4.)

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 107 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). Prerequisite: 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.). Prerequisite: FRE 105, 102, 103, or instructor's permission.

Cr 3.

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, Saint-Denis Garneau, and Marcel Dubé. Prerequisite: FRE 361, 362H or 363H.

Cr 3.

FRE 461 17th-Century Literature

A seminar in 17th-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. Prerequisite: 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. Prerequisite: FRE 361, 362H or 363H. Cr 3.

FRE 463 19th-Century Literature

A seminar in 19th-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. Prerequisite: 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. Prerequisite: 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. Prerequisite: FRE 361, 362H 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 102 Beginning German II

Continuation of GER 101. 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 107 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 201 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 102, two years of high school German or the equivalent.

Cr 3. (With lab, Cr 4.)

GER 202 Intermediate German II

Continuation of GER 201. Prerequisite: GER 201 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. Prerequisite: GER 105, 102, 103 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 106 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 106 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
Continuation of ITA 101. Cr 4.

ITA 201 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 202 Intermediate Italian II
Continuation of ITA 201. Prerequisite: ITA 201 or the 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
Continuation of POR 101. Cr 4.

POR 201 Intermediate Portuguese I
Review of grammatical structures. Further development of listening comprehension,

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 times a week; in addition, work with coordinated language tapes is required. Cr 5.

RUS 102 Beginning Russian II
Continuation of RUS 101. 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, understanding, 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.)

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 202 or equivalent. Cr 3.

ITA 252 Readings in Modern Italian Novels II

Continuation of ITA 251. Prerequisite: ITA 251 or equivalent. Cr 3.

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.

RUS 281 Seminar in Russian Literature in English Translation

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 281 and the discussions will be in English. Cr 3.

RUS 291 Russian and Soviet Culture and Civilization

A historical view of Russian and Soviet society and culture from the origins of the East Slavic settlements to the present day. No Russian is required. Cr 3.

RUS 321 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 322 Advanced Russian II

Continuation of RUS 321. 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; for RUS 281, the readings will be in English. RUS 351 will meet for a fourth hour to discuss problems of language and

style. Offered in Russian with prerequisite of RUS 322; offered in English for non-majors as RUS 281 with no prerequisite. 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

Beginner's course in Spanish. 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.

SPA 102 Beginning Spanish II

Continuation of SPA 101. Cr 4.

SPA 107 Intensive Beginning Spanish and SPA 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 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 8.)

SPA 201I Intermediate Spanish I

Review of grammatical structures. Further development of listening comprehension, speaking, reading and writing skills. Continued emphasis on understanding of Hispanic culture and civilization through reading and discussion of literary and historical texts as well as frequent reference to contemporary customs and events. Students are encouraged to also register for laboratory practice (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 207 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 102 or equivalent. Offered during the summer only. Cr 6. (With lab, Cr 8.)

SPA 321 Composition and Conversation in Spanish I

Advanced study of the Spanish language. Frequent practice of composition. Conversation and oral reports. Prerequisite: SPA 202I or equivalent. Cr 3.

SPA 322 Composition and Conversation in Spanish II

Continuation of SPA 321. Cr 3.

SPA 351 Introduction to Hispanic Spanish II

A survey of the important periods and trends in Spanish literature with reading of representative works. Prerequisite: SPA 202I. Cr 3.

SPA 352 Introduction to Hispanic Literature II

Continuation of SPA 351H. Cr 3.

SPA 470 Independent Study

Geography-Anthropology

Chair of the Department: Judy H. Tizon, 300E Bailey Hall, Gorham
Associate Professors: French, Hodges, Tizon; *Assistant Professors:* Crader, 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 36-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 anthropology minor in health and human services.

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: 36.

All students must take: ANT 101J, GEO 101J, GEO 201J, and GYA 400 or GYA 350-351.

Students electing to concentrate in anthropology must take:

GEO 104 or GEO 303J
ANT 102K
ANT 103
ANT 210 or ANT 305
AND
12 ANT hours

Students electing to concentrate in geography must take:

ANT 103 or ANT 210
ANT 213
GEO 102K
GEO 104
AND
12 GEO hours

Additionally, all geography-anthropology majors are required to take: three hours of research writing or the equivalent; three hours of quantitative methods or the equivalent. Only 6 hours of internships and/or independent studies may be applied toward the major.

Beyond these basic requirements, the student must set up a program of geography-anthropology courses to fulfill the remaining credits of the total 36 credits for the major with his/her advisor. All courses in that program must be approved in advance by the advisor.

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

Anthropology Minor in Health and Human Services

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

Required Courses: ANT 101J, ANT 102J, ANT 302, ANT 303, GEO 401

Choice of one from: GYA 350-351, GYA 400

Archaeology Laboratory

The Archaeology Laboratory located in 317 Bailey Hall provides facilities for research in archaeology and related areas. Current facilities 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 workstudy 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 processors are present at most hours of the day to offer assistance.

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 321 Historic Material Analysis

This lab/discussion course involves the analysis of materials derived from field survey and archaeological investigation of selected historic period North American sites. Activities include the chronological and distributional analysis of ceramics, glass, metal and other artifacts of the historic period. Students are encouraged to pursue specific research topics using documentary sources as well as assist in the curation of artifacts in the Museum of Cultural Change.

Cr 3.

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. Prerequisites: junior or senior standing in geography-anthropology. Grading will be pass-fail. Cr 1-6.

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 "primitive," intermediate, and complex cultures through readings and films. This course is required for all majors concentrating in anthropology. Cr 3.

ANT 102J 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. Cr 3.

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 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 210 Culture Theory

This course is an historical survey of theory in anthropology from the early classical evolutionists to contemporary materialist and idealist approaches. It will examine the various

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). Individuals wishing to take advantage of this option should secure a faculty sponsor and departmental approval. Variable credits will be offered.

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 101J or permission. 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 102J. 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 232I Women in Cross-Cultural Perspective

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 301I Victims of Progress: Primitive Peoples in the Modern World

This course examines the disappearance of simpler 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 303 Food and Nutrition: An Anthropological Perspective

The purpose of this course is to examine the relationship between human population 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 4.

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.

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 concentrating in geography. It also provides models and concepts useful in many other disciplines.

Cr 3.

GEO 102K Physical Geography

This course examines the interrelationships between people and the physical environment. Climate, soil, vegetation, landforms, water and mineral resources are the topics that are covered in this introductory course. This course is required for all majors concentrating in geography.

Cr 3.

GEO 102L Physical Geography Laboratory

Laboratory exercises acquaint the student with the materials, methods, and data with which the physical geographer works. Numerical

data, climate and topographic maps, and other forms of field data are employed to solve practical problems of human interaction with the physical environment. Co-requisite: GEO 102K. Cr 1.

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. 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, landform representation, and mapping point, volume and linear data. Prerequisite: GEO 104 or permission of instructor. 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 Farnington 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 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 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 critically the factors and trends that anticipate the future. Prerequisite: GEO 101J or ANT 101J or permission of instructor. Cr 3.

GEO 401 Food and Hunger

The course will examine agricultural systems in different parts of the world in terms of productivity, trade, economy and ecology. Physical and cultural inputs will be considered for each system. Trends and problems within the United States will be examined, with special emphasis given to the region of New England and the state of Maine. Prerequisite: GEO 101J, ANT 101J, or ANT 102K 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.

Geosciences

Chair of the Department: Stephen G. Pollock, 311B Bailey Hall, Gorham

Associate Professors: Ayers, Novak, Pendleton, Pollock; *Assistant Professor:* Swanson, Zolidis

Programs and Requirements

Courses offered by the Department of Geosciences are grouped under the following headings: Astronomy; Oceanography; and Geology.

A 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 major courses.

Geology

The geology major is available for those students intending to go to graduate school or 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
AND		
CHY	115, 116	Principles of Chemistry II
PHY	121K, 122K	General Physics I
AND		
PHY	123, 124	General 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	491, 492	Senior Thesis in Geology

OR

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	304	Sedimentary Rocks
GEY	310	Glacial and Pleistocene Geology
GEY	350	Geological Field Methods
GEY	401	Advanced Petrology
GEY	402	Ore Deposits
GEY	405	Tectonics

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.

Astronomy

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 100 to fulfill requirements for a science laboratory experience. Includes a study of the moon's orbit, Earth's orbital motion, rotation of Saturn's rings, the sun, binary stars, the Crab

nebula, variable stars, pulsars, Hubble's law, and planetarium sessions. Prerequisite: AST 100K.

Cr 1.

AST 105 Astronomy in the Planetarium

For non-science majors. Includes apparent stellar movement and planetary motions, star names and constellation study, stellar magnitudes, stellar navigation, and celestial coordinate systems. No prerequisite.

Cr 3.

AST 210 Observational Astronomy

Star charts, atlases, binoculars, cameras, and telescopes are used to make observations of constellations, sun-spot activity, the moon, the planets and their satellites, star clusters, nebulae, double and variable stars. Prerequisite: AST 100K or equivalent.

Cr 3.

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.

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.

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.

Prerequisite: GEY 111K, 112K. Two hours of lecture. 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: GEY 113, 114. Two one-hour lectures and one two-hour lab per week.

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 cri-

teria, and metamorphic foliations. The lab includes problems in descriptive geometry, stereonets, the Brunton compass, geologic maps and cross sections, and analysis of poly-phase folding. Prerequisite: 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. Two 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 340 Geophysics

A study of the principles of seismology, gravity, and magnetism and their applications and significance to our understanding of crustal geology structure and tectonics. Three hours lecture. Prerequisite: GEY 301; PHY 123, 124.

Cr 3.

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 volcanica terrain in eastern coastal Maine. Summer. Five weeks. Prerequisite: GEY 111K, 112K and GEY 113, 114, GEY 203, GEY 301. Recommended: GEY 302, GEY 303, GEY 202.

Cr 6.

GEY 402 Ore Deposits

A study of the geologic setting and processes involved in the formation of the major types of epigenetic and syngenetic metalliferous ore deposits. Laboratory examines sulfide-oxide mineralogy, reflected light microscopy of ore samples, and map relations of ore districts. Prerequisite: GEY 301, 303. (GEY 303 may be taken concurrently). Afternoon and weekend field trips. Three hours lecture, two hours laboratory. Cr 4.

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 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 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 juniors and seniors 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 arrange-

ments 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 through a written report done by the student together with the employer and a faculty supervisor. Prerequisite: junior class standing and a major in earth science. Each semester students may take each course only once. Cr 1-5.

History

Chair of the Department: H. Draper Hunt, 422 Luther Bonney Hall, Portland
Professors: Cole, Conforti, Eastman, Hunt, Schleh; *Associate Professors:* Albee, Bibber, Dietrich, Padula, Ventresco, Whitmore; *Assistant Professors:* Barnes, Eagan, Holden

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.

Programs 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. See the Department chair for details. 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, the major may wish to take some of them as supplementary electives.

Bachelor of Arts in History

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 41.

European and American survey courses

HTY	101I	Western Civilization I
HTY	102I	Western Civilization II
HTY	131I	United States History to 1877
HTY	132I	United States History Since 1877

Third World survey courses (select two)

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
HTY	396	Research Paper

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 on an area, a chronological period, or methodological approach. The program must be developed in cooperation with a member of the history faculty, include the two-semester survey sequence appropriate to the area, period, or topic, and be approved by the chair of the department.

Requirements: appropriate two-semester survey sequence (approved by the advisor and department chair); and elective advanced history courses (four courses approved by advisor and department chair).

HTY 101I Western Civilization I

A basic survey and introduction to the heritage of Western man 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 man 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 133I American History I

A survey of United States history which examines institutional development and change in major areas of American society and culture before 1900 by means of lecture case studies, a variety of paperbound readings, films, slides, music, and small-group discussions. (This course may not be used to fulfill requirements for major, minor or concentration as of September, 1976.) Cr 3.

HTY 134I American History II

A continuation of HTY 133I which examines institutional change and development in modern American urban industrial society

and culture since 1900. (This course may not be used to fulfill requirements for major, minor or concentration as of September, 1976.)

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 181I 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 182I 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.

Cr 3.

HTY 300 History Internship

Professional experience in one of a variety of positions in public and private institutions that utilize 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 Ancient History I

The political, social, and economic history of the civilizations of the ancient Mediterranean world, with Egypt, the Near East, and Greece being studied. (Offered occasionally.)

Cr 3.

HTY 304 Ancient History II

A continuation of HTY 303 concentrating upon an examination of ancient Rome. (Offered occasionally.)

Cr 3.

HTY 31I 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 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 322 20th-Century Europe

An intensive survey of European developments in the 20th century. The course deals with such intellectual trends as the revolt against positivism, Freudian psychology, expressionism and surrealism in the arts as well as with such phenomena as totalitarianism in its various forms (Nazism, Fascism, Soviet Communism). World Wars I and II and the post-1945 evolution of Europe are thoroughly analyzed. 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, 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 131I 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 American Colonial History

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 America, 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 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 heritage, 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 A 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 heritage. 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 370 American Economic and Business History, 1607-1860

Economic and business developments in the United States from the first settlements to the Civil War. The course covers the British mercantile system, the colonial economy, the transportation revolution, the Southern plantation system, and the beginnings of American industrialization. Prerequisite: HTY 131I or permission. (Offered occasionally.) Cr 3.

HTY 371 American Economic and Business History Since 1860

Economic and business developments in the United States from the Civil War to the present. The course covers the growth of a national market and distribution system, the revolution in agriculture, the rise of big business, the organization of labor; and the growing involvement of the federal government in business and the economy. Prerequisites: HTY 132I or permission. (Offered occasionally.) 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 gathering 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 the Spanish-American War. 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, though 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 dis-

cussions 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, I

The conceptualization, research, and writing of a term paper. Course must be taken concurrently with a course between HTY 303 and HTY 399 offered by the same instructor. Course limited to and required for history

majors. Prerequisite: HTY 200 and permission of instructor.

Cr 1.

HTY 396 Research Project for History Majors, II

Same as HTY 395, except course may not be taken with the same instructor who guided the student in HTY 395. Course limited to and required for history majors. Prerequisite: HTY 395 and permission of 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.

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. Prerequisite: HTY 395 and 396 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. A current list may be obtained from the history chair.

Mathematics and Statistics

Chair of the Department: Maurice J. Chabot, 235 Science Building, Portland
Professors: Estes, Guay, Gupta, B., Kratzer, Mainville, Rogers; *Associate Professors:*
 Brown, Chabot, Foster, Irish, MacDonald; *Assistant Professors:* El-Taha, Flagg,
 Gupta, S., Kenyon, Narang, Soychak, Viana; *Instructors:* Kucinski, Merrow

The Department of Mathematics and Statistics offers a four-year program leading to a B.A. in mathematics. The Department also provides the mathematics major courses for a B.S. in education. 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 42 (24 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)

			(24 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	3 cr
MAT	380	Probability & Statistics	3 cr
OR			
MAT	381	Probability Theory	3 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 or the area major described in Section IV and they should take Abstract Algebra and Non-Euclidean Geometry. To be eligible for student teaching in secondary mathematics, a student must have completed 30 hours of mathematics courses having a second digit 5 or greater, with an accumulative grade point average of at least 2.0 in these courses and have successfully completed MME 345.

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 Probability Theory, 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	561	Stochastic Models in Operations Research
MAT	492	Graph Theory and Combinatorics

- 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 four of the courses listed below:

MAT	381	Probability Theory
MAT	382	Statistical Inference
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. Double Major in Mathematics and Computer Science

The Department of Mathematics in cooperation with the Department of Computer Science offers a double major in mathematics and computer science. Students may receive either a B.S. in computer science with an additional major in mathematics or a B.A. in mathematics with an additional major in computer science.

The minimum number of credits (exclusive of the University's Core curriculum) required for the double major: 63.

Each student must have an accumulative grade point average of at least 2.0 in the major courses before being considered for a baccalaureate degree. Students should see the chair of the Department of Mathematics for advising.

A. Successful completion of the following courses

MAT	152D	Calculus A
MAT	153	Calculus B
MAT	252	Calculus C
COS	160	Structured Problem Solving — PASCAL
COS	161	Algorithms in Programming
COS	250	Computer Organization
COS	251	Software Systems
COS	285	Data Structures
COS	360	Programming Languages
COS	480	Introduction to the Theory of Computing

MAT	295	Linear Algebra
MAT	380	Probability and Statistics
OR		
MAT	381	Probability Theory
MAT	290	Foundations of Mathematics
OR		
COS	280	Discrete Structures (but not both)

B. Successful completion of two courses from one of the following areas

a) Pure Mathematics Area

MAT	352	Real Analysis I
MAT	355	Complex Analysis
MAT	395	Abstract Algebra
MAT	490	Topology
MAT	370	Non-Euclidean Geometry
MAT	371	College Geometry

OR

MAT	372	Projective Geometry
b) Applied Mathematics/Operations Research Area		
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	561	Stochastic Models in Operations Research
MAT	492	Graph Theory and Combinatorics

c) Statistics Area

MAT	381	Probability Theory
MAT	382	Statistical Inference
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

C. Successful completion of three of the following computer science courses, to include at least one 400-level course.

COS	355	Computer Architecture
COS	357	File Organization
COS	370	Topics in Computer Science
COS	374	Numerical Analysis (not to be taken in addition to MAT 364)
COS	450	Operating Systems
COS	469	Introduction to Compiler Construction
COS	472	Artificial Intelligence

D. Successful completion of six additional hours of electives in mathematics or computer science with second digit 5 or greater.

III. Minor in Mathematics

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 20.

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.

IV. Programs in Mathematics Education

Secondary Education Program

Mathematics majors enrolled in the Secondary Education program in the College of Education are required to complete an additional six hours of liberal arts courses to meet accreditation standards. Also, students are required to complete an 18-hour minor in a subject normally taught at the secondary level to meet state certification requirements.

In addition to the 42-hour major in mathematics, the Department of Mathematics, in cooperation with the Department of Computer Science and the College of Education, offers an area major of 51 hours of mathematics and computer science courses for students majoring in secondary education. The program consists of the following courses:

A. Successful completion of the following

MAT	152D	Calculus A
MAT	153	Calculus B
MAT	252	Calculus C
MAT	290	Foundations of Mathematics
OR		
COS	280	Discrete Structures
MAT	380	Probability and Statistics
COS	160	Structured Problem Solving – PASCAL
MAT	295	Linear Algebra
MAT	370	Non-Euclidean Geometry
MAT	395	Abstract Algebra

B. Successful completion of one course from each of the following groups

Group 1

MAT	352	Real Analysis I
MAT	355	Complex Analysis
MAT	490	Topology

Group 2

MAT	350	Differential Equations
MAT	364	Numerical Analysis
MAT	366	Deterministic Models in Operations Research

C. Successful completion of four of the following computer science courses

COS	161	Algorithms in Programming
COS	250	Introduction to Computer Systems
COS	285	Data Structures
COS	355	Computer Architecture
COS	360	Concepts of Higher Level Programming Languages
COS	370	Topics in Computer Science
COS	374	Numerical Analysis (not to be taken in addition to MAT 364)

D. Successful completion of three additional hours of electives in mathematics or computer science with second digit 5 or greater.

E. The following professional education courses

EDU	100	Exploring Teaching as a Profession
EDU	200	Foundations of Education
HRD	333J	Human Growth and Development
MME	345	Teaching Mathematics in the Secondary School
EDU	324	Student Teaching

EDU Electives (6 hours)

To be eligible for student teaching in secondary mathematics, a student must have completed 30 hours of mathematics courses having second digit 5 or greater with a grade point average of at least 2.0 in these courses and have successfully completed MME 345.

It is also recommended that CSE 345 Teaching Computer Science in the Secondary School be taken as an elective in the completion of the overall 120 credits required for graduation.

Elementary Education

The Department of Mathematics and Statistics, in cooperation with the College of Education, offers two programs for elementary education majors. The first is a major in mathematics and the second is a major in mathematics and computer science. Upon completion of the required

course in either program, the student earns either a double major in mathematics and elementary education or a double major in mathematics and computer science and elementary education.

Program Requirements

Elementary Education and Mathematics

Elementary Education (54 hours)	Mathematics (39 hours)
Pre-education 18 hours	Required: (18 hours):
EDU 100	MAT 152D
EDU 210	MAT 153
EDU 360	MAT 252
HRD 333J	MAT 290
MAT 131D	COS 160
MAT 232	Algebra area (3 hours)
Pre-Service (6 hours):	Analysis area (3 hours)
EDU 210 waived	Applied mathematics (3 hours)
EDU 303	Geometry area (3 hours)
EDU 336	Mathematics Electives (9 hours)
Internships (30 hours)	
Junior internship	
Senior internship	

Program Requirements

Elementary Education and Mathematics and Computer Science

Elementary Education (54 hours)	Mathematics (27 hours)
Pre-Education (18 hours)	Required (15 hours):
EDU 100	MAT 120D
EDU 210	MAT 131D waived
EDU 360	MAT 231
HRD 333J	MAT 232 waived
MAT 131D	MAT 233
MAT 232	MAT 431
Pre-Service (6 hours):	MME 234
EDU 210 waived	EDU 360 waived
EDU 303	Electives (12 hours) of MAT, COS,
EDU 336	or MME courses with second digit
Internships (30 hours)	of 2 or greater.
Junior Internship	
Senior Internship	

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 104. 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 calculator with memory and with at least the operation of add, subtract, multiply, divide and square root if they enroll in MAT 120D, MAT 211, MAT 362, or MAT 363

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 number systems, functions, graphs, the solution of equations, and the solution of problems with a business orientation. Prerequisite: MAT 009 or its equivalent. Cr 3.

Note: MAT 010 carries credit only in the associate degree program.

MAT 011B Intermediate Algebra

A continuation of MAT 010. Prerequisite: MAT 010 or one year of high school algebra. Cr 3.

Note: MAT 011B carries credit only in the associate degree program.

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: two years high school algebra. Cr 3.

MAT 104D Topics in Mathematics

This course is designed to give students (not majoring in mathematics or computer science) an understanding of some key ideas in contemporary mathematics. The material is chosen to develop an awareness of the utility of mathematics in life and to instill an appreciation of the scope and nature of mathematics. Topics will be selected from: sets, logic, graphs, geometry, counting methods, probability, statistics, game theory, growth and decay laws, matrices, and mathematical programming. Prerequisite: Two years of high school algebra and one year of geometry. Cr 3.

MAT 105 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: Two years of high school algebra and one year of geometry. Cr 3.

MAT 109D Linear Systems

An introduction to vectors, matrices, and linear systems of algebraic equations and linear programming. Prerequisite: two years of high school algebra and one year of geometry. 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. Prerequisite: two years of high school algebra and one year of geometry, 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: two years of high school algebra. 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: two years of high school algebra and one year of geometry. 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. Prerequisite: two years of high school algebra and one year of geometry, 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 Intermediate Statistics

An extension of MAT 120, Introduction to Statistics. Topics emphasized: correlation, regression, Chi-square goodness of fit, analysis of categorical data, non-parametric methods, analysis of variance (one- and two-way layouts, random effect and mixed effect models), design of experiments. Students will utilize at least one of the large computer-based statistical packages (BMD, SAS, SPSS, SCSS). Prerequisite: MAT 120D or the equivalent. 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 3.

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, Laplace transforms, systems of linear differential equations, an introduction to 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. Prerequisite: 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. Prerequisite: 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 or permission of instructor. 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: MAT 153. Cr 3.

MAT 381 Probability Theory

Basic concepts of probability theory, discrete and continuous random variables and their distributions, moment generating functions, characteristic functions, limit theorems, Markov chains. Prerequisite: MAT 295. Cr 3.

MAT 382 Statistical Inference

Review of sampling distribution: 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 295 and 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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. This course and MAT 461 complement each other. Prerequisite: 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. Prerequisite: MAT 381 and MAT 295. 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. Prerequisite: 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, and social science. 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. Prerequisite: junior or senior standing, permission of the instructor, and permission of the department chairman.

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 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, BJB 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. Prerequisite: 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 expe-

riences 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: junior or senior standing.

Cr 3.

Music

Chair of the Department: Ronald F. Cole, 206B Corthell Hall, Gorham
Professors: Bowder, Cole; *Associate Professors:* Boden, Martin, Russell; *Assistant Professors:* Atterbury, Fithian, Parchman, Reeves; *Lecturer:* Freeman; *Portland String Quartet in residence:* Kecskemethy, Lantz, Adams, Ross.

Applied Music Faculty Piano: Thomas Bucci, Ronald Cole, Robert Glover, Jon Kliftonoff; *Voice:* Bruce Fithian, Linda Freeman, Sue Ellen Kuzma; *Violin:* Stephen Kecskemethy, Ronald Lantz; *Viola:* Julia Adams; *Cello:* Katherine Graffam, Paul Ross; *Bass:* Katherine Graffam; *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, David Winer; *Tuba:* Donald Rankin, David Winer; *Percussion:* Nancy Smith; *Harp:* Jara Goodrich; *Classical Guitar:* Michael Katz, Thomas Tessitore

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 science 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 and a cognate in music are offered

for students majoring in elementary education, and a minor in music is offered for students in the College of Arts and Sciences.

Music Fees

An applied music fee of \$48.00 per semester for hour lessons, or \$24.00 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 \$135.00 for half-hour lessons and \$270.00 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 University will subsidize the applied music fee for a cognate to a maximum of nine credit hours. The student will pay \$48.00 per semester for hour lessons and \$24.00 per semester for half-hour lessons in addition to the University tuition fee.

Students other than music majors, cognates, and minors will be accommodated for applied music lessons if a teacher's time is available, but will be subject to a fee of \$135.00 for half-hour lessons or \$270.00 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 major, cognate, and minor 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, III, IV; Solfeggio I, II, III, IV; Basic Conducting; Instrumental Conducting; and Vocal 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, cognate, 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 130E, 131, 230, 231	Music Theory
MUS 132, 133, 232, 233	Sight Singing and Ear Training

Concert Attendance Policy

All music majors, cognates, 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. Information concerning this policy is available in the Department office.

Bachelor of Science in Music Education (MUED)

The degree of bachelor of science 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. These totals include 6 credits to be elected from the offerings of the College of Arts and Sciences, but not from music.

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 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; EDU 324 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. Beginning with the first semester of enrollment, participation in at least one major instrumental and one major vocal organization each semester. Students who are unable to meet the audition requirements of either Concert Band or Chamber Orchestra will be assigned to Percussion Ensemble. Pianists will satisfy one credit of this requirement through accompaniment of singers or instrumentalists.
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.
5. Presentation of a solo recital in the senior year (or junior year with special permission).

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
*MUS	355	Vocal Pedagogy
MUS	453	Workshop in Music Drama
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	453	Workshop in Music Drama

Bachelor of Arts in Music (MUSA)

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 as it relates to the repertoire 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)

Performance Ensembles (4 credits)

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 (MUSM)

This degree program is designed to meet the needs of 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 four credit hours of their ensemble requirements in the appropriate major ensemble. A student is expected to be enrolled in the appropriate major ensemble whenever registered as a full-time student. A minimum of two credit hours must be in Chamber Music.

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.

Music Cognate for B.S. Degree in Elementary Education

The music cognate for B.S. degree candidates in elementary education consists of 36 credits of music courses as follows:

MUS	100G	Music History and Appreciation
MUS	120G	
	121G	Music History (choose two)
	220G	
	221G	
MUS	130F, 131	Music Theory
MUS	132, 133	Sight Singing & Ear Training
MUP	201F	Applied Music Piano (2 credits)
	or	
	202F	
MUP	201F	Applied Music Voice
*MUS	255	Guitar
MUS	400F, 401F	Ensembles (four semesters' participation)
	402F, 403,	
	405F, 407	
	and/or	
	408F	

*MUS	355	Vocal Pedagogy
*MUE	322	Elementary Music Methods
Music Electives		9 credits (excluding MUS 110F and MUE courses with a limit of six additional credits in applied music)

Courses marked with an asterisk (*) rotate on a two year schedule; students are advised to plan ahead.

Up to three credit hours may also be counted towards the fulfillment of USM Core curriculum area F or G (but not both).

Minor in Music Education

The minor program is designed to provide an opportunity for candidates for the degree of bachelor of science in elementary education 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 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:**Portland String Quartet**

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 Choral

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. Extensive touring throughout the state. 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 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.

Courses for Majors
Music History and Theory

MUS 120G History of Music I

Medieval and renaissance periods: historical development and music practices from the Gregorian chant and early polyphony thrival in England. Musical examples of outstanding composers are played, analyzed, and discussed. Music majors only or permission of the instructor. Cr 3.

MUS 121G History of Music II

Baroque period; continuation of MUS 120G, from the establishment of opera in Italy and

the rise of instrumental music, to the culmination of polyphony in the works of J.S. Bach. Music majors only or permission of the instructor. Cr 3.

MUS 130 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; modulation; 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 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. Representative 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 Theory II. Cr 3.

MUS 331 Form and Analysis II

Study and analysis of music of the baroque and contemporary periods with emphasis on contrapuntal forms and styles. Prerequisite: MUS 131 Theory II. Cr 2.

MUS 332 Counterpoint

Tonal counterpoint. The process of invention and fugue as exemplified in the music of the baroque era. Prerequisite: MUS 230 Theory III. 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 majors, cognates, 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

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

lesson per week for twelve weeks in the major performance area in fulfillment of applied music requirements. Restricted to music majors, cognates, 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 280 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 2.

MUS 281 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 280 or the equivalent. Cr 2.

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 355 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.

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 442 Recital Class

Performance in major field, stage department, 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.

MUS 453 Workshop in Music Drama

This course 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. The course will culminate either in the performance of a full-length opera, operetta, or musical comedy (in conjunction with the Theatre Department) or

in an evening performance of opera arias, ensembles, or scenes. May be repeated for credit. A vocal performance major may take this course in lieu of one credit of chamber music. Cr 1.

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, cognates, 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, cognates, 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. Prerequisite: MUS 131 and 133. Cr 1.

MUE 222 Percussion Class

Practical experience on and methods of teaching percussion instruments. Prerequisite: MUS 131 and 133. Cr 1.

MUE 224 Woodwinds I

Methods of teaching flute and clarinet. Practical experience on these instruments; elements of transposition. Prerequisite: 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 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. Prerequisite: 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 420 Marching Band Techniques

The course is designed to prepare the music educator to organize and effectively teach Marching Band in the public school. A statement of philosophy is stressed. Marching styles, execution, music developing marching percussion, role of the drum major and effective instrument placement are emphasized in the course. Restricted to junior and senior music majors. Cr 2.

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. Prerequisite: MUE 322 or equivalent and HRD 333j. Cr 1.

Philosophy

Chair of the Department: Robert B. Loudon, 47 Exeter St., Portland

Professors: Gavin, Grange, F. Schwanauer; *Associate Professors:* Conway, Louden;

Assistant Professors: Caffentzis, Murphy, Watts

"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 in a way no other activity does one's problem-solving capacities. 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.

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.

All philosophy majors must take four history of philosophy courses. The first two of these, to 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 320I (Medieval Philosophy), PHI 340I (Late Modern Philosophy), PHI 350I (American Philosophy), PHI 360I (Existentialism), PHI 370 (Analytic Philosophy).

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 either a Senior Seminar (PHI 400, 401, 402) or an Independent Study (PHI 398).

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.

Any introductory philosophy course is a prerequisite to all other courses in philosophy.

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 the introductory level, that is, any PHI 100 course.

These should include two courses in the history of philosophy: PHI 310I; PHI 320I; PHI 330I; PHI 340I; PHI 350I; PHI 360I; PHI 370.

One course which examines the foundations of philosophical inquiry: PHI 150; PHI 200; PHI 210; PHI 270.

Two courses which relate philosophical theories to contemporary problems: PHI 211; PHI 220; PHI 230; PHI 240; PHI 250; PHI 260; PHI 275; PHI 290; PHI 291.

PHI 101E Introduction to Philosophy: Freedom 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.

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.

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.

Cr 3.

PHI 105E Introduction to Philosophy: Theories of Human Nature

A study of some influential theories of human nature in Western culture. Among issues to be studied are: the question of method; freedom and determinism; materialism and dualism; and the nature of moral values.

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. Cr 3.

PHI 106E Introduction to Philosophy: Self and Society

To what extent does society shape our view of ourselves? The course will introduce the student to philosophical thinking as a mode of reflection on the meaning of our daily lives. We will analyze the individual consciousness, the court and the state, and current mythologies in terms of their influence on the discourse of social life and institutions. Emphasis will be given to the role of the philosopher in society and the task of philosophy in determining our possibilities for freedom. Students will gain skill in philosophical thinking: the formulation of philosophical questions, identification and analysis of philosophical theories, and in-depth criticism and evaluation of philosophical perspectives. Cr 3.

**PHI 106E 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. Cr 3.

**PHI 112E Introduction to Philosophy:
Concepts and Consequences**

Philosophy comprises both a kind of question and a way of answering questions. The questions it asks are fundamental ones; the way of answering is universally applicable. This course will provide an introduction to some typical questions: how are my mind and body related? what makes me me? what is causation? am I free? how can I know anything? what ought I to do? In addressing these questions and looking at responses to them by contemporary and historical thinkers, we will also practice the methodology of philosophy in discussion and writing. The aim is not so much

to find "the answers," but to learn how to think clearly about such issues and to present one's thoughts precisely and logically. Cr 3.

PHI 150 Symbolic Logic

Techniques of modern deductive logic; properties of formal systems; logical implications and paradoxes of language. 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 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 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 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 sociobiology, 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 gen-

eral 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 310 History of Ancient Philosophy

Philosophic thought from the pre-Socrates to the late Hellenistic period, with major emphasis on Plato and Aristotle. 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 Hume. 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. Prerequisite: 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. Prerequisite: 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.

Physics

Chair of the Department: Robert Coakley, 250 Science Building, Portland
Associate Professors: Armentrout, Coakley, Walking; *Assistant Professor:* LaSala

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,

122K, 123, 124 General Physics I & II with lab

OR

PHY 111K, 112 Elements of Physics I & II with lab

PHY 211, 212 Modern Physics with lab

PHY 221 Mechanics I

PHY 223 Electricity & Magnetism I

PHY 240 Intermediate Lab

2 Electives. The student must take a minimum of 14 credits of physics courses numbered 200 or higher including at least 3 credits from each of groups 1, 2, and 3 below, and at least 1 credit from group 4.

Group 1. Classical Physics Courses

PHY 321 Mechanics II

PHY 323 Electricity and Magnetism II

PHY 371 Physical Chemistry

Group 2. Topical Courses

PHY 281 Astrophysics

PHY 269 Radiological Physics

PHY 325 Optics

PHY 251 Electronics

PHY 253 Microprocessor Electronics Acoustics (to be developed)

Group 3. Advanced Courses

PHY 311 Quantum Mechanics

PHY 440 Advanced Physics Laboratory I

Group 4. Other Electives

PHY 390 Special Topics in Physics

History of Physics (to be developed)

Special Relativity (to be developed)

Kinetic Theory of Gases (to be developed)

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

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 102. 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 102 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, radioac-

tive 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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 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. Prerequisite: 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. Prerequisite: PHY 223 and two semesters of calculus. Lecture three hours, laboratory three hours. Cr 4.

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.

Political Science

Chair of the Department: Richard J. Maiman, 126 Bedford St., Portland
Professors: Fisher, Maiman, Woshinsky; *Associate Professors:* Coogan, Roberts;
Assistant Professors: Erickson, Faksh, Hamilton

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 does not 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 hold a variety of management positions in local, state, national, and international organizations. Beyond government, a political science degree leads naturally to law school or other graduate training. 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.

Bachelor of Arts in Political Science

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 36.

Programs and Requirements

Each major must complete POS 101J, 102J, and 103. These courses are prerequisites for all upper level courses. No major will be permitted to take more than one upper level course without first having completed these three prerequisites. A grade of C minus 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 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.

Public Administration and Public Policy: POS 210; POS 251; POS 252; POS 253; POS 286.

Upper-level political science courses *all* require either POS 101J or POS 102J or the permission of the instructor. Note that POS 101J is *not* a prerequisite for POS 102J.

In special cases the requirement of POS 101J may be waived if the student successfully completes an examination administered by the Department. In rare cases the Department may also grant credit for other political science courses. Students who wish to obtain the POS 101J waiver or receive credit for other departmental courses should petition the Department through its chair.

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 and internships.

Yearly: (Fall) POS 104J, 233, 283, 289. (Spring) POS 284, 290. (Either semester) POS 103, 235, 236, 237, 249, 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.

Note: POS 307 Statistical Methods for Social Research may be substituted for POS 103.

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.

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. 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

POS 235 Democratic Governments of Europe

An introduction to the parliamentary system, through a study of the governmental operations and politics of Britain, France, and the Federal Republic of Germany. Other topics covered: the Common Market and prospects for European integration; relationship of democratic Europe with communist Europe. Prerequisite: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

POS 236 Communist Governments

This course offers a survey of existing communist social systems. The following topics will be considered: variation in political parties and state systems, the problem of nationalism, economic management, and cultural policy. Special attention will be given to a comparative survey of current communist ideology and the question of the "socialist commonwealth." Prerequisite: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

POS 237 The Politics of the Soviet Union

An introduction to the USSR: Russian and Soviet political history; Marxism-Leninism; the party and state structures; the socialist economy; the impact of the regime on the individual. Prerequisite: 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. Prerequisite: POS 101J, POS 102J and POS 103 or permission of the instructor.

Cr 3.

POS 239 Soviet Foreign Policy

A survey of Soviet foreign policy as a continuation of Tsarist policies and as a world movement. 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, including relations with the Communist world. Prerequisite: 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. POS 101J, 102J or 104J are 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. Prerequisite: 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.

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 institu-

tions, socialization and communications, political participation, policy formation and implementation, and change over time. Prerequisite: 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. Prerequisite: 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, development, 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. Prerequisite: 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?"

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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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 differences? 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. Prerequisite: 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. Alter-

native approaches for dealing with ecological problems will be discussed. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: POS 283. 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." Prerequisite: POS 101J, POS 102J and POS 103 or permission of the instructor. 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. Prerequisite: junior or senior standing. 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. Prerequisite: junior or senior standing. 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. Prerequisite: POS 101J, POS 102J and POS 103 or permission of the instructor. Cr 3.

POS 307 Statistical Methods for Social Research

Emphasis on uses of statistics in the organization, interpretation, and presentation of research data. Measures of association and correlation; testing of hypotheses, probability, and sampling. Includes one hour per week of laboratory exercises. Also listed as SOC 307D. Prerequisite: POS 102J or SOC 100J. Cr 4.

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. Prerequisite: POS 101J or POS 102J, 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 chairman 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 chairman 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 chairman 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. Representatives and Senators. The course is open only to selected students; see department chairman 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. 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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.

Psychology

Chair of the Department: Joseph F Hearn, 514 Science Building, Portland
Professors: Bishop, Gayton, Paradise; *Associate Professors:* Hearn, Sanborn, Sytsma; *Assistant Professors:* Broida, Brown

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: 40.

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 223	Child Development
PSY 330	Social Psychology
PSY 333	Psychopathology
PSY 350	Psychology of Learning
PSY 351	Learning Laboratory
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 40-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 201)
BIO 105K	Biological Principles

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, further courses in psychology and also include in their programs 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.

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 101. 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 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 neuroses and psychoses. Psychological, social, and biological factors that contribute to maladjustment are examined. Prerequisite: 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, and 320, or permission of the instructor. 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 351 Learning Laboratory

An introduction to laboratory experiences designed specifically to demonstrate the basic

principles of behavior conveyed in PSY 350. Topics include positive reinforcement, extinction, shaping, discrimination, schedules of reinforcement, generalization, and others. Prerequisites: PSY 101J and 102. PSY 350 must be taken either prior to or concurrently with PSY 351. Cr 1.

PSY 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

Examination of current research in personality. Intensive experience in designing, executing, reporting, and evaluating research in personality. This will include a research project. Prerequisite: PSY 320 or permission of instructor. Spring semester only. 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 systems. Emphasis 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 effects of drugs in relation to their behavioral and mental effects are examined in light of current research. A major focus is what such agents indicate about the workings of the mind and body. 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 natu-

ral 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, bioen-

ergetics, 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 departmental chairman. Cr 3.

Social Work

Chair of the Department: Vincent E. Faherty, Portland campus

Professors: Faherty, Steinman; *Associate Professors:* Deprez, Kreisler, Lazar, Lieberman, Rich; *Assistant Professor:* Strom; *Field Work Coordinator:* Asen

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 one year instead of two.

Admission to the Social Work Department is initially on a provisional basis. Formal admission occurs after the student has completed the Department's admission application and has had an admission conference with his or her faculty advisor. This normally takes place in the second semester of the sophomore year. Transfer students who select social work as their major should meet with their faculty advisor as soon as possible after they are admitted to the University.

Included in the social work course requirements are two semesters of field work. During these two semesters the student puts in 480 hours in his or her field assignment, which takes place in a community agency. 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.

In planning their program, provisional and admitted students must regularly consult with their faculty advisor. Such consultation is designed to help the student explore career objectives, review Departmental requirements, design the best possible combination of required courses and electives, and to facilitate a productive relationship between the student and the Department.

The students of the Department have organized a Social Work Majors Association. The organization seeks to facilitate communication between students and faculty, ensure student involvement in departmental delibera-

tions, provide for professional growth, and act on issues and problems in the community. Student representatives attend faculty meetings and serve as full members on the Department's personnel 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 352, 353	Methods of Social Work Practice I and II
SWO 354, 355	Field Work I and II
SWO 361	Dynamics of Organizations, Professions and Consumers
SWO 370	Human Behavior in the Social Environment
SWO 433	Social Welfare Research
SWO 450	Social Problems and Social Welfare Policy
SWO 456	Issues in Social Welfare and Social Work

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	Macroeconomics
BIO 101K	Biological Foundation
BIO 102K	Biological Experiences
POS 101J	Introduction to Government

OR

POS 102J	People and Politics
PHI	(Any introductory 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. These four other courses are selected with the advice and approval of the student's advisor.

Students are expected to achieve a grade of C—or better in all Department of Social Work and required foundation knowledge courses.

SWO 101J Introduction to Social Welfare

Seeks to define a perspective within which to understand the needs, problems, and potential of humans as individuals and in groups. Describes and analyzes social welfare systems and social work practices as they currently respond to social needs, and as they might better facilitate the development of human potential.

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 field. Field observation by student required. Prerequisite: SWO 101J.

Cr 3.

SWO 265 Women—Social Change

Examines the ways our culture affects and is affected by women in the areas of physical and mental health throughout their lifespan. Emphasis will be placed on an assessment of the problems women face in today's world as well as personal and political approaches to these problems.

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 267 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. Cr 3.

SWO 274 Aging and Social Policy: A Cross-Cultural View

Examines similarities and differences between simple and complex societies in their treatment of processes of aging. Against this background the position of older Americans is considered in relation to various social institutions, together with the origin and implementation of social policies affecting them. Cr 3.

SWO 275 Developmental Services to the Aging

Policy, administration, and implementation of human services to older people are studied from a developmental standpoint. Examines implications of age bias (and its modification) for the nature of service. SWO 274 recommended but not required. Cr 3.

SWO 278 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. Cr 3.

SWO 279 Skills for Serving the Frail Elderly

Enhances values and skills for guiding families to plan with (rather than for) older relatives; for performing periodic, differential functional assessments of clients' remaining strengths as well as their limitations; for utilizing the network of community supports; for discerning appropriate institutionalization and for discharge planning; and for advocacy and assertiveness with and on behalf of the frail elderly. Cr 3.

SWO 288 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. Cr 3.

SWO 352 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. Study of the values and

knowledge base of social work skills. Class discussion and assignments based on community lab experience (SWO 354) which may be taken concurrently. Prerequisites: SWO 101J, 201. Cr 3.

SWO 353 Methods of Social Work Practice II

A continuation of SWO 252 covering application of basic social work skills to areas of practice such as community organization, crisis intervention, group work. Class discussions and assignment based on community lab experience (SWO 355) which must be taken concurrently. Cr 3.

SWO 354 Field Work I

For social welfare 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. Prerequisites: SWO 101J; 201; 352 (concurrent). Cr 6.

SWO 355 Field Work II

A continuation of SWO 354. Spring term only. Prerequisites: SWO 352 and 354; SWO 353 concurrent. Cr 6.

SWO 361 Dynamics of Organizations, Professions and Consumers

Provides a series of concepts for the study and critical evaluation of the bureaucracies, professions, and consumers of social work and other services. Examines a range of approaches to rendering human services more responsive to client needs. This course is offered one semester each academic year. Prerequisite: SWO 352, SWO 354 or permission of instructor. Cr 3.

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: SWO 450 or permission of instructor. Cr 3.

SWO 370 Human Behavior in the Social Environment

A study of the implications of theory and research related to human development for social welfare policy and social work practice. Prerequisites: 12 credits of upper level social or behavioral science in addition to SWO 101J, 201; PSY 101J, 102 and introductory course in biology. Cr 3.

SWO 380 Child Welfare

A study of the process of growing under handicapping social conditions and the implications for social services and institutional change. Prerequisite: SWO 101J or permission of the 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. Cr 3.

SWO 433 Social Welfare Research

A study of the implications of social welfare research for social policy and social work practice. Students practice applications of concepts and methodology by means of projects. Prerequisites: SWO 101J plus senior standing or permission of instructor. Students must also have satisfied quantitative decision making requirement with one of the approved statistics courses. Cr 4.

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. Prerequisite: SWO 352, SWO 354, ECO 201J, POS 101J or 102J, or permission of instructor. Cr 3.

SWO 452 Methods of Social Work Practice III

Provides further exploration of the theoretical knowledge and practice skills involved in utili-

zation of particular interventive methods (e.g., child advocacy, organizational change and/or the more focused knowledge, methods, and skills needed for effective intervention with a particular population at risk: adolescents, the frail elderly, substance abusers). Prerequisite: permission of instructor. Cr 3.

SWO 453 Methods of Social Work Practice IV

A continuation of SWO 452. Cr 3.

SWO 454 Field Work III

An advanced field experience in social work practice. Fall term only. Prerequisite: SWO 354 or permission of the instructor. Cr var.

SWO 455 Field Work IV

A continuation of SWO 454. Spring term only. Cr var.

SWO 456 Issues in Social Welfare and Social Work

Senior seminar for social welfare majors that seeks to integrate class and field experience. Open to others by permission only. Must be taken in student's final semester. Cr 3.

Sociology

Chair of the Department: Madeleine D. Giguere, 120 Bedford St., Portland
Professors: Giguere, Lacognata, Monsen, Beirne; *Associate Professors:* Anspach, Fullam, Grzelkowski, Lehman, Messerschmidt; *Assistant Professor:* Preston

Sociology is the study of social life and the social causes 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 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 at the University 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 Sociology 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 offers a strong and on-going internship and work experience 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 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: 44.

All students must complete 38 hours of coursework in sociology and must also satisfy a cognate requirement consisting of 6 hours above the introductory level in a related discipline.

Majors are encouraged to complete their courses in Methods of Social Research (SOC 205), Sociological Theory I (SOC 300) and Sociological Theory II (SOC 301) and Statistical Methods (SOC 307D) relatively early in their academic careers.

Common Requirements

SOC	100J	Introduction to Sociology
SOC	205	Methods of Social Research
SOC	300	Sociological Theory I
SOC	301	Sociological Theory II
SOC	307D	Statistical Methods for Social Research

Distribution Requirements (three hours from each of the following areas)

SOC	310-319	Social Processes
SOC	330-339	Social Institutions
SOC	350-369	Units of Social Life
SOC	370-379 or SOC 215 or SOC 200	Social Problems

Electives in Sociology (9 hours)

Students in general sociology may satisfy their cognate requirement with any six hours above the introductory level in any of the following areas: anthropology; biology; criminology; economics; geography; history; mathematics; philosophy; political science; psychology; social work; computer science.

Minor in Sociology

The minimum number of credits (exclusive of the University's Core curriculum) required for the minor: 19.

Ten credit hours are required courses; the remainder are electives. Required Courses: SOC 100J; SOC 205; SOC 300; 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 minor advisor, reflect the preprofessional or other interests of the student.

Note: Advisor to sociology minors: Professor David Fullam.

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.

Introducing the Discipline

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 200 Social Problems

Application of a sociological frame of reference to selected contemporary problems. Guides the student toward an understanding of why and how problems develop, how particular social groups are affected by them, and what is involved in dealing with them. Prerequisite: SOC 100J or permission of instructor. Cr 3.

SOC 202 Social Policy and Social Issues

This course serves as an introduction to the field of social policy. It examines social policies that address contemporary social issues. Students acquire a conceptual knowledge of social policies, their historical development and ideological foundations, and the techniques of social policy analysis. Prerequisite: SOC 100J or permission of instructor. Cr 3.

research techniques. Includes one hour per week of laboratory exercises. Prerequisite: SOC 100J or permission of instructor. Offered each semester. Cr 4.

SOC 300 Sociological Theory I

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: SOC 100J and two other SOC courses, or permission of instructor. Offered fall semesters. Cr 3.

SOC 301 Sociological Theory II

An investigation of contemporary sociological theory. Traces descent of the classical statements through to the present, and identifies both linkages and discontinuities in sociological analysis. Attention is also given to the socio-cultural settings within which various schools of sociological theorizing presently flourish. Prerequisites: SOC 300 and two additional SOC courses, or permission of the instructor. Offered spring semesters. Cr 3.

SOC 304 Theoretical Perspectives in Social Policy

This course investigates the relation between sociological theory and social policy. It critically examines the political and ideological underpinnings of various schools of social policy. In addition, the course identifies link-

Tools of the Discipline

SOC 205 Methods of Social Research

Conceptualization and research design, data collection and analysis, logic of inquiry and

ages and discontinuities between theory and policy. Prerequisites: SOC 100J or SOC 200 and SOC 202 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. Includes one hour per week of laboratory exercises. Prerequisite: SOC 205 or permission of instructor *for Sociology majors*. Non-Sociology majors have no required prerequisite for this course. Offered spring semesters. Cr 4.

Social Processes

SOC 310 Social Change

Analysis of sociocultural factors related to social change and the dynamics of the change process. Prerequisite: SOC 100J or permission of instructor. Cr 3.

SOC 312 Class and Inequality

A systematic assessment of structured social inequalities in wealth, power, and status in industrialized societies. Emphasis is placed on assessing social policies employed to reduce, ameliorate, or sustain such inequalities. Prerequisite: SOC 100J or permission of instructor. Offered spring semesters. Cr 3.

SOC 315 Self and Society

A sociological examination of theory and research in major areas relating personality and social systems; attitudes and behavior; socialization; social perception; bureaucratic

structure and personality; etc. Emphasis on issues involved in relating two theoretical levels of analysis. Prerequisite: SOC 100J or permission of instructor. Cr 3.

SOC 316 Sociology of Gender

An examination of sex roles in a socio-political and cultural context focusing on the sexual division of labor in American society. Prerequisite: SOC 100J 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 specifically on how liberal, Marxist, radical, and socialist feminists have analyzed gender as related to crime. Prerequisites: SOC 100J and CRM/SOC 215. Cr 3.

Social Institutions

SOC 330 Sociology of the Family

A sociological approach to the study of the family, including the structure of social relationships, the modern American family as a social institution, the cultural background of the family, and the impact of social change. Prerequisite: SOC 100J or permission of instructor. Cr 3.

SOC 331 Sociology of Education

An examination of the historical and socio-political development and structure of public and private education in contemporary American society. Topics include education as a bureaucratic enterprise, as a vehicle of social control, as a vehicle of social change and systems as a reflection of social consensus, dissension and conflict. Prerequisite: SOC 100J or permission of instructor. Cr 3.

SOC 332 Industrial Sociology

Social factors involved in the development of industry; social consequences of technological change; social organization within industry; problems encountered within the social structure(s) of industry. Prerequisite: SOC 100J or permission of instructor. Cr 3.

SOC 333 Sociology of Medicine

A consideration of the socio-cultural dimensions of disease, responses to disease, and social mechanisms that are developed to prevent, treat, and otherwise deal with disease. Particular attention is paid to the socio-histor-

ical development of understandings of health, disease, and health care. Prerequisite: SOC 100J or permission of instructor. Cr 3.

SOC 334 Sociology of Religion

Review and critique of classical and contemporary sociological interpretations of religion, with emphasis on the changing character of religious expression in the twentieth century. Prerequisite: SOC 100J or permission of instructor. Cr 3.

SOC 335 Sociology of Sport

A critical examination and analysis of the sports culture in American society. Particular emphasis will focus on the manifest and latent functions of sport-related human social behavior as it relates to the promotion of particular social values, processes, and institutions. Prerequisite: SOC 100J 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: SOC 100J 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: SOC 100J or permission of instructor. Cr 3.

*Units of Social Life***SOC 350 Sociology of Urban Life**

A descriptive and analytical approach to the study of city life. Emphasis is placed on environment, social organization, the ecological processes, population areas, housing, and maladjustment. Prerequisite: SOC 100J 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. Offered fall semesters. Cr 3.

SOC 353 Social Movements

The rise and developments of social movements emphasizing structuring and institutionalization. Social movements and socio-political change. Prerequisite: SOC 100J or permission of instructor. Cr 3.

SOC 355 Politics and Society

Possibilities and limitations of political democracy in industrial, bureaucratic society.

Capitalism and socialism, their underlying ideologies, and the resulting political structures will be contrasted. Emphasis on current American politics with comparative perspective when relevant. Prerequisite: SOC 100J or permission of instructor. Cr 3.

SOC 357 Bureaucracy in Modern Society

Examination of the nature and types of formal organizations, the relationships between them and the larger social context of which they are a part, and their internal structure. Prerequisite: SOC 100J 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: SOC 100J or permission of instructor. Cr 3.

SOC 361 Sociology of Franco-Americans

Description and analysis of the development and present state of the culture, institutions and social structure of Americans of French-Canadian descent in the United States. Comparisons with Quebec and Acadia will be made when pertinent. Prerequisite: SOC 100J or permission of instructor. Cr 3.

*Social Problems***SOC 215 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 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: SOC 100J 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 pornography. 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: SOC 100J or permission of instructor. Cr 3.

SOC 374 Mental Health and Mental Illness

An examination of theories of the "causes" of "madness" and the treatment of the mentally ill. Particular attention on the influence of culture on the definition of illnesses, the relationship between social factors and illness, and the social context of treatment. Prerequisite: SOC 100J 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: SOC 100J 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: SOC 100J 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: SOC 100J 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.

Theatre

Chair of the Department: Walter Stump, Russell Hall, Gorham
Professors: Stump, Rootes; *Associate Professors:* Power, Steele, Kading; *Assistant Professor:* Picinich; *Technical Director:* Fauver; *Costumer:* Kinne

The Theatre Department offers a four-year program leading to a B.A. degree in theatre. Students may choose to emphasize a particular area such as performance, technical theatre, or a general theatre curriculum. 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: 49.

Incoming freshmen may declare their intent to major in theatre but must apply for major status. With the exception of incoming transfer students, the application for major status must be submitted to the Department chair by the second semester of the sophomore year—after the completion of 45 credits and before the completion of 60 credits.

Application Forms are available in the theatre office, and the completed forms are to be returned to the Department secretary no later than March 1 of spring semester.

Students applying for major status must have completed the following courses:

THE	120F	Fundamentals of Acting: Movement & Improvisation
THE	130	Theatre Workshop
THE	135F	Stage Craft I
THE	136F	Stage Craft I Lab
THE	139	Make-up

Applicants will be considered only after the student presents one of the following during spring auditions: an acting audition of three to four minutes in length of the student's own selection or his/her portfolio in some technical aspect of theatre; scenic or costume design, etc.

All majors or intended majors are required to take a half unit of theatre workshop (THE 130, 131, 132, 133) per semester.

After the faculty has reviewed the student's application and viewed the audition or presentation, the faculty will resolve to (1) accept, (2) put on one semester's probation, or (3) reject the applicant. The criteria used in this decision are these:

Academic proficiency in all courses taken, not just theatre courses. (A required 2.5 GPA in theatre courses and 2.0 overall GPA. Grade of C—or better required in all theatre courses.)

Active involvement in all aspects of Theatre Department production; Willing and active participation in the on-going activities of the Department;

Presence at the strikes for all productions in which the student participates whether as crew or cast member.

After the faculty has made its decision, the chair will notify each applicant personally.

If accepted as a theatre major, the student will be assigned a faculty member as advisor. The student is expected to make an appointment each semester with the advisor to assure the completion of the remaining requirements as a theatre major.

If put on probation for major status due to GPA falling below a 2.50 in courses in the major and/or a 2.00 in courses outside the major, the student is required to resubmit his or her application during the next academic

semester. If placed on probation due to academic problems, the student 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 course-work) until the student has shown improvement in his or her grades.

If the student's application for major status is refused, she or he must wait for one semester before resubmitting the application. The student may appeal any rejection if desired.

Students are encouraged to meet with the faculty or staff whenever questions arise or problems occur.

A total of 38 credits in theatre, not to include those hours selected for major preparation, is required for graduation.

The following courses are required:

THE	121F	Fundamentals of Acting: Scene Work
THE	131	Theatre Workshop
THE	132	Theatre Workshop
THE	133	Theatre Workshop
THE	137	Stagecraft II and THE 138 Stagecraft II Lab
THE	201	The Survey of Dramatic Literature
THE	210H	Play Analysis (complete by end of sophomore year)
THE	220	Acting III: Voice for the Actor
THE	240	Costume I
THE	241	Costume Lab
THE	290F	Oral Interpretation
THE	221	Advanced Scene Work
OR		
THE	320	Acting V: Contemporary Acting Methods
THE	340	History of the Theatre I
OR		
THE	341	History of the Theatre II
THE	330	Stage Lighting
OR		
THE	331	Scene Design
Any one course:		
THE	361	Late 19th Century Drama of the Western World
THE	362	20th Century Drama of the Western World
THE	363	Contemporary Avant-Garde Drama
THE	360	American Drama

Theatre Department Production Requirements

A. All theatre majors must participate in a minimum of five Theatre Department productions according to the following guidelines: (1) work performed on a minimum of two of these productions must be in the areas of tech/design;* (2) work performed on a minimum of two of these productions must be in the areas of acting/performing;* (3) these productions must be "in-house" Theatre Department productions; (4) these productions may be part of the requirements of a formal Theatre Department course; (5) students may receive work-study or unrestricted funds for this production work if Theatre Workshop credit is not received (THE 130, 131, 132, 133); (6) students may enroll in Theatre Workshop (THE 130, 131, 132, 133) for these productions if they are not receiving work-study or unrestricted funds as compensation for their production work.

*In the event that a student repeatedly auditions or requests tech 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 tech/design minimum production requirements.

B. Students with acting emphasis will present audition pieces to the Department three times during their academic career. These auditions will occur in the spring semester and all auditions (second, third, and fourth years) will take place at one time. Students will receive a non-recorded letter grade and an assessment of their strengths and weaknesses from the Department faculty. The auditions will take place at the following times during the student's academic career.

At the end of the second semester sophomore year. This initial audition is required for admission to major status. This audition, consisting of one selection, will be no longer than three minutes.

At the end of the second semester junior year. This audition will be no longer than five minutes and consist of two contrasting pieces of the student's own choice.

At the end of the second semester senior year. This audition will be four to five minutes and will consist of two contrasting pieces: one contemporary, one classical (anything prior to 1700).

C. Non-acting majors must submit a portfolio presentation in technical theatre. The portfolio may contain selections of the following in any combination: working drawings and elevations of scenery; costume renderings and swatches; specific projects that have been approved by the faculty.

Students may use some of the past materials as the portfolio develops, but each year there must be new material added to it. The portfolios will be submitted and defended at the following times:

At the end of the second semester sophomore year. This initial presentation is required before admission to major status.

At the end of the second semester junior year.

At the end of the second semester senior year. This is the portfolio the student would use in seeking employment.

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: 18.

The courses required are THE 120F or THE 121F, THE 101G, THE 290F, THE 135F, and two courses from the following: THE 220, THE 221, THE 320, THE 330, THE 340, THE 210H, THE 361, THE 362, THE 363, THE 460.

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 120F Acting I—Fundamentals of Acting: Movement and Improvisation

This is a practical course designed to introduce the student to basic elements of the creative process in acting. The course is designed to cultivate the student's sense of both physical and mental self by increasing his or her ima-

gination, creative, and technical abilities. Course utilizes movement, sensitivity, mime, and improvisational exercises. Cr 3.

THE 121F Acting II—Fundamentals of Acting: Scene Work

This is a practical course designed to introduce the student to basic skills of acting through stage movement, projection, characterization and scene work. Emphasis made on internal preparation by developing a role and on external techniques for projecting that role. Cr 3.

THE 122F 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 120F or THE 121F or permission of the instructor. Cr 3.

THE 124 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 125 Intercollegiate Forensics

A continuation of THE 124. Cr 1.

THE 126 Intercollegiate Forensics

A continuation of THE 125. Cr 1.

THE 127 Intercollegiate Forensics

A continuation of THE 126. Cr 1.

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 1.

THE 131 Theatre Workshop II

A continuation of THE 130. Prerequisite: THE 130. Cr 1.

THE 132 Theatre Workshop III

A continuation of THE 131. Prerequisite: THE 131. Cr 1.

THE 133 Theatre Workshop IV

A continuation of THE 132. Prerequisite: THE 132. Cr 1.

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 137 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, construction, painting, and mounting of a major University theatre production. (Concurrent enrollment in THE 138 Stagecraft Lab required.) Prerequisite: THE 135F or instructor consent. Cr 3.

THE 138 Stagecraft II Lab

A lab course allowing practical application of theory discussed in THE 137. (Concurrent enrollment in THE 137 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 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 201 Survey of Dramatic Literature

This course is a survey of major dramatic literature covering such periods as Greek, Elizabethan, Neo-Classical, 18th and 19th centuries and Modern. The plays will be approached from the theatre practitioner's viewpoint. Cr 3.

THE 210H Play Analysis

Representative dramas for the stage are read, discussed and criticized using the Aristotelian elements of plot, character, thought, diction, music, and spectacle as analytical tools. Cr 3.

THE 220 Acting III—Voice for the Actor

This is a practical course designed to develop the actor's speaking voice through emphasis on breath control, articulation, and enunciation. Prerequisites: THE 120F, 121F Cr 3.

THE 221 Acting IV—Advanced Scene Work

This is a practical course designed to develop advanced characterization techniques through the use of scene work. Emphasis will be placed on both serious/comic acting and on methods

for preparing auditions. Prerequisite: THE 120F, 121F, or 220 or permission of instructor. Cr 3.

THE 222F 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. Prerequisite: THE 122F 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 120F or THE 121F) or permission of the instructor. Cr 3.

THE 230 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 234 Directing I

A basic course providing background and experience in play direction. This course is particularly valuable for the classroom teacher. Practicum required. Prerequisite: THE 210H or permission. Cr 3.

THE 240 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 241 Lab required.) Cr 3.

THE 241 Costuming I Lab

The course is a laboratory session that allows practical application of theory discussed in THE 240. (Concurrent enrollment required in THE 240). Cr 1.

THE 274 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 234 or by permission. Cr 3.

THE 290F 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 320 Acting V—Contemporary Acting Methods

This is a practical course designed to broaden the basic skills of the actor through the use of new contemporary acting techniques and approaches. The course will include a continuation of audition preparation. Prerequisite: THE 120F, 121F, 220, 221, or permission of instructor. Cr 3.

THE 321 Acting VI—Acting Styles

This course deals with specific problems in interpretation of Shakespeare and classical and neo-classical tragic and comic styles. Emphasis will be placed on language, characterization, and audition work. Prerequisite: THE 120F, 121F, 220, 221 or permission of the instructor. Cr 3.

THE 330 Stage Lighting

Introduction to stage lighting design, elements of electricity, color, light sources, instrumentation, and control systems. Student will participate in lighting projects in practicum. Prerequisites: THE 135F, THE 137, THE 210H. 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 137, and THE 210H, or permission of instructor. Cr 3.

THE 334 Directing II

Designed to train directors in theatrical organization and rehearsal techniques. Encompasses composition, picturization, movement and rhythm. Course involves both contemporary theory and practical application. Prerequisites: THE 234, 135F Senior or junior with permission. Cr 3.

THE 335 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 210H. Cr 3.

THE 340 History of the Theatre I

A study of the development of the drama, the physical theatre, and the modes of production from the ancient Greek period through to 1640. Cr 3.

THE 341 History of the Theatre II

A study of the development of the drama, the physical theatre, and the modes of production from the Restoration to the present. Cr 3.

THE 350 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 360 American Drama

A study of drama in the United States. A brief history of early American playwrights followed by a close study of major figures, with O'Neill at the center. Others: Maxwell Anderson, Robert Sherwood, Tennessee Williams, Arthur Miller; and Edward Albee. Cr 3.

THE 361 Late 19th-Century Drama of the Western World

This course is designed to acquaint the theatre major and non-major with a broad range of dramatic literature of the early 19th century. Representative plays of Ibsen, Strindberg, Chekhov, Shaw, and others which exemplify the literary, social, political, and philosophical aspects of the age will be studied. Cr 3.

THE 362 20th-Century Drama of the Western World

This course is designed to acquaint the theatre major and non-major with a broad range of dramatic literature of the 20th century. Representative plays of O'Neill, Odets, Anouilh, Brecht, Sartre, Wilder, Miller, Beckett, Osborne, and others which exemplify the literary, social, political, and philosophical aspects of the age will be studied. Cr 3.

THE 363 Contemporary Avant-Garde Drama

This course is designed to acquaint the student of theatre with the new voices in contemporary dramatic literature. Representative plays from American and foreign playwrights will be covered. Cr 3.

THE 390 Advanced Oral Interpretation

A continuation of THE 290F. Cr 3.

THE 391 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 398 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.

THE 399 Independent Study

Students should contact the Department regarding information for independent study.

THE 433 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.

College of Education

Dean: Dorothy D. Moore, 119 Bailey Hall, Gorham

Chair, Department of Professional Education-Undergraduate Division: Paula Hodgdon; *Chair, Department of Human Resource Development:* Willard Callender; *Chair, Department of Professional Education-Graduate Division:* Charles F. Smith; *Director, Center for Professional Development:* George Lyons; *Director, Office of Clinical Experiences:* Melissa Costello

Department of Professional Education—Undergraduate Division

Professors: Hodgdon, Neuberger; *Associate Professors:* Bouchard, Colucci, Costello, Foster, Milbury, Morrill, Wood; *Assistant Professors:* Austin, Davis, Holman; *Instructor:* Drew

Department of Professional Education—Graduate Division

Professor: O'Donnell; *Associate Professors:* Amoroso, Cohen, Curry, Kulawiec, Lyons, Miller, Smith, Wood; *Assistant Professors:* Broyles, Capelluti, Goldsberry, Rees

Department of Human Resource Development

Professors: Callender, Southworth, Sutton; *Associate Professors:* Brady, Davis, Moore; *Assistant Professors:* Atkinson, Painter, Stevens, VanZandt, Vess

The College of Education is organized into three departments. The Professional Education Department-Undergraduate Division offers an undergraduate degree in elementary education. The Professional Education Department-Graduate Division offers degrees in reading, instructional leadership, educational administration, and exceptionality. The Department of Human Resource Development offers graduate degrees in counselor education, adult education, and community agency/rehabilitation counseling, and school psychology. Additionally, undergraduate degree programs are offered with the College of Arts and Sciences in art education, music education, and secondary mathematics; and undergraduate degrees are offered with the School of Applied Science in industrial arts education and vocational occupational education.

The undergraduate department is supported by the Office for Clinical Experiences, which coordinates field experiences such as practica, internships, and student teaching. The Educational Placement Office provides professional assistance in preparing students for employment opportunities.

The Professional Development Center serves undergraduate students, graduate students, and community educators. Services include maintenance of a resource laboratory which houses commercial education materials for examination and loan, specialized teaching resources, and a workshop area for teacher production of classroom materials; sponsorship of conferences and workshops responsive to the needs of educators; support of curriculum reviews by local schools through consultation and material provision; assistance in planning and implementation of field-based noncredit, recertification credit, and in-service graduate credit experiences; and assistance in securing other University, regional, and statewide staff development resources.

The Office of Graduate Education administers graduate programs in the College of Education. Information about these programs is available in that office (408 Bailey Hall) and the University's graduate catalog.

General Information

Admission to an undergraduate program in the College of Education is initiated through the Admissions Office. Candidates for admission must be graduates of approved secondary schools or hold the high school equivalency diploma. A detailed description of the admissions procedure may be found in the section of this catalog, Undergraduate Admissions.

Education majors are assigned an advisor during the first semester they are enrolled in the College. *Responsibility for successfully completing the requirements of a program resides with the student.* It is, therefore, necessary that students carefully read the catalog section which describes program requirements, and confer at least once each semester with their advisor for approval of their programs.

Grade Point Average Students majoring in elementary education must earn an accumulative grade point average (GPA) of 2.5 in their complete baccalaureate program. Students must achieve an accumulative GPA of 2.5 in their teaching specialty and professional education requirements (EDU courses). No more than one D will count toward fulfillment of the Core curriculum and no more than one D can apply to the liberal arts teaching specialty. No D grades will count toward the fulfillment of the professional education requirements.

To qualify for student teaching or the internship program, students must have earned an accumulative GPA of 2.5.

Pass/Fail Option Elementary education majors may register for a total of 6 hours of pass/fail credits in their liberal arts specialty. The pass/fail option applies only to courses numbered 200 or above. Required courses in the Core curriculum and the professional sequence may not be taken pass/fail.

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 to a faculty sponsor an independent study application which includes a detailed description of the proposed program of study. Approval by the appropriate department chair is required. No University credit may be earned through independent study for courses described in this catalog. The approved independent study form is filed with the Registrar during the registration period.

Graduate Course Enrollment for Undergraduate Students An undergraduate student may be permitted to enroll in graduate courses if the following conditions are met:

1. The student is a junior or senior in an approved undergraduate program.
2. The student has an earned cumulative GPA of 3.0.
3. The student has met all course prerequisites.
4. The student has received prior approval to enroll in the course from his or her advisor, course instructor, and the appropriate department chair.
5. The student is not displacing a graduate student in the course; that is, an undergraduate student may enroll in a course only after all qualified graduate students have had an opportunity to enroll in the course.
6. The student may not enroll in courses that are restricted to matriculated graduate students only.

Intern Program/Student Teaching A teaching internship is a cooperative teacher education program for elementary majors that the College of Education shares with participating school districts. In addition to being assigned to classroom teachers who help interns integrate theory and practice, the interns receive instruction on-site by University and public school personnel. Internship programs generally are designed as two-semester programs where the interns may earn up to 30 academic credits.

The student teaching program is an option appropriate for some non-traditional and transfer students. This program is highlighted by on-campus methods courses and one semester of student teaching.

International Exchange Exchange programs with King Alfred's College, Winchester, England are also available. Students may elect to complete a semester of study, including student teaching, through this option. If a student does student teaching in another country, the student is required to do a minimum of 6 credits (8 weeks) of student teaching in Maine under USM supervision.

Undergraduate Program Description

Elementary Education Program

The elementary education curriculum prepares graduates to teach in grades K-8. Details are provided in the following pages of this catalog.

Secondary Education Mathematics Program

The secondary education program offers a major in mathematics. Graduates of this program are certified to teach mathematics in grades 7 through 12. Students enrolled in this secondary education program are also required to complete an 18-semester hour minor of a subject commonly taught in the secondary schools. For details of this program please refer to the Mathematics Department in the College of Arts and Sciences section of this catalog.

Art Education Program

Completion of a bachelor of science degree in art education certifies the graduate to teach or supervise art programs in all grades, K-12, of the public schools in the state of Maine. Admission to this program is through the Admissions Office of USM.

The program is made up of three components: (1) the University's Core curriculum, (2) the art major, and (3) the professional sequence which is listed on the following pages of this catalog.

Music Education Program

The aim of the music education program is to develop individual potential in the areas of musicianship and scholarship, as well as to present the most recent trends in the fields of music education. Upon satisfactory completion of the four-year program, graduates receive a bachelor of science degree with a major in music education and are certified by the state of Maine to teach music in grades one through twelve. The program qualifies graduates to teach or supervise all phases of vocal and instrumental music. For details of this program please refer to the Music Department in the College of Arts and Sciences section of this catalog.

Industrial Arts Education Program

The industrial arts curriculum prepares students for the teaching of industrial arts in elementary and secondary schools. It is the only college program in the state of Maine in this specialized field. Details of this program may be found in the section on the School of Applied Science.

Vocational Occupational Education Program

This is a part-time evening and summer program leading to a bachelor of science degree with a major in vocational occupational education. Details of this program may be found in the section on the School of Applied Science.

Graduate Programs

The College of Education also offers a master of science degree in education, with a variety of major concentrations. Please refer to the graduate programs page in this catalog, and to the Graduate Catalog.

Department of Professional Education— Undergraduate Division

The Department of Professional Education is primarily responsible for the development of the curriculum for elementary education majors. The Department also offers courses in the professional education sequence for persons majoring in art education, or music education, and offers a secondary education program in mathematics. A Certificate Program in Athletic Coaching for men and women is available through the physical education unit which is associated with the Department of Professional Education.

Programs and Requirements

Elementary Education

Completion of the Elementary Education curriculum qualifies graduates to teach in all grades kindergarten through eight in the public schools of the state of Maine. Students completing the prescribed program will be awarded a bachelor of science degree in elementary education.

The program for elementary education majors is made up of three components: (1) the University's Core curriculum, (2) an approved specialty of liberal arts courses, and (3) a sequence of professional education courses.

Admission to the elementary education program is through the University of Southern Maine's Admissions Office. Admissions procedures are described in this catalog in the section, Undergraduate Admissions.

Transfer students may not transfer any Professional Education course credits required for the undergraduate degree if they are more than 10 years old.

During the first semester of their matriculation, education majors are assigned advisors in the College of Education who will make recommendations for appropriate course selection. During the first two years of study, students are referred to as pre-service education majors and usually complete the Core curriculum prescribed by the University. They also begin a liberal arts program of courses and enroll in selected education courses.

To maintain continuing status as an elementary education major, students are required to submit an application upon completion of 45 semester hours with an accumulative grade point average of 2.5. Applications may be obtained from advisors who will guide pre-service education majors through this process. The essential criteria for acceptance into the upper division of the elementary education major are as follows:

- A. Completion of at least 24 University Core curriculum credits, HRD 333J, MAT 131D, and MAT 232.
- B. An accumulative grade point average of 2.50
- C. At least two recommendations
- D. Completion of at least two of the following Pre-service Education courses, one of which must be EDU 100;
 - EDU 100 Exploring Teaching as a Profession
 - EDU 210 Theoretical Foundations of Learning
 - EDU 360 Microcomputers
 - EDU 303 Developmental Reading I
 - EDU 310 Preparation of Classroom Materials
 - EDU 336 Children's Literature

Applications are reviewed by an Admissions Committee within the Department of Professional Education and forwarded with appropriate recommendations to the Dean of the College of Education. Applicants are advised of their acceptance or rejection prior to pre-registration for the next semester. The faculty of the College of Education reserves the privilege of retaining only those students who, in the judgment of the faculty, satisfy the requirements of scholarship, maturity, and personal suitability for teaching.

The University Core curriculum is a set of courses selected by category that involves 34 semester hours of coursework. It should be noted that in some cases one course may be taken that will satisfy simultaneously two categories. Specifically, HRD 333J Human Growth and Development will satisfy a Social Science requirement of the Core curriculum, while at the same time satisfying a requirement of the professional education sequence; and MAT 131D Number Systems for Elementary Teachers will satisfy a Quantitative Decision requirement, while at the same time completing one of specified mathematics requirements of the Department of Professional Education. The Elementary Education Department requires the completion of MAT 232 Geometry for the Elementary School Teacher.

A concentration of courses featuring a liberal arts specialty may be completed in one of several ways, all of which require the approval of a College of Education advisor.

- (1) A department-approved sequence of 36 semester hours in a single liberal arts discipline.
- (2) A multi-disciplinary program of courses of at least 36 credit hours approved by the College of Education featuring a liberal arts specialty. These multi-disciplinary themes include: humanities, fine arts, natural sciences, social sciences, and mathematics/natural science.
- (3) A liberal arts major as described in the College of Arts and Sciences section of this catalog. This option would lead to a double major. An additional advisor from the appropriate College of Arts and Sciences department is encouraged.
- (4) A self-designed major of at least 36 semester hours which is approved by a College of Education advisor and then approved by the Faculty Council for Interdepartmental Majors in the College of Arts and Sciences.

The professional education sequence is composed of two parts: (1) pre-service education courses and (2) an internship or student teaching.

<i>The Pre-service Education Courses</i>			<i>Credits</i>
EDU	100	Exploring Teaching as a Profession	3
EDU	210	Theoretical Foundations of Learning	3
EDU	303	Developmental Reading I	3
EDU	310	Preparation of Classroom Materials	3
EDU	336	Children's Literature	3
EDU	360	Microcomputers	3
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Internship Part I (2nd semester junior year)

Enabling Experiences in a Public School Setting			
EDU	304	Practicum in Elementary School Mathematics	2
EDU	307	Practicum in Elementary Science	2
EDU	311	Practicum in Language Arts	2
EDU	358	Practicum in Elementary Social Science	2
EDU	320	Practicum in Developmental Reading II	2
EDU	331	Teaching Strategies and Seminar	3
PHE	304	Health & Physical Education for Teachers	2
			<hr/> 15

Internship Part II Teaching (1st semester of senior year)

EDU	325	Internship with Master Teacher	12
EDU	335	Exceptional Children in the Classroom	3
			<hr/> 15

During the final semester of the elementary education internship program, students must complete their liberal arts component and EDU 400 Seminar in Critical Issues in American Education (3 credits).

Student Teaching

Student teaching in lieu of internship is an option for some nontraditional, transfer, or special students seeking teacher certification. Criteria for student teaching are listed in the student program planning guidebook. Applications for student teaching placements in the 1989-1990 academic year are due in the Clinical Experience office on or before February 1, 1989.

Certificate Program in Athletic Coaching for Men and Women

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.

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

EDU 100 Exploring Teaching as a Profession

This course provides an introduction to the College of Education program for all elementary and secondary mathematics majors during the first year. The course is designed around lectures and seminars coordinated with field-based experiences in a school setting. The purpose is to enable students to make a valid career decision through an examination of the diversity of facets of education including teacher roles, educational settings, and curricular methods. Cr 3.

EDU 151 Preprofessional Field Experience (For International Exchange Students)

This section is designed primarily for international exchange students. It allows an expanded preprofessional experience (requiring a minimum of four full days per week in schools). Students are expected to participate in teaching activities as well as classroom management during this placement. Cr 6.

EDU 200 Studies in Educational Foundations

This course provides an introduction to the study of American education. Problems and issues in contemporary education are examined from several perspectives, including the social, historical and philosophical. Cr 3.

EDU 210 Theoretical Foundations of Learning

An interdisciplinary approach to the study of the learning process. Explores origins and domains of learning theories. Analyzes how

major theories view the learning process. Applies theoretical content to motivation, concept development, classroom management, methodology and evaluation. Prerequisites: EDU 100 and HRD 333J (or concurrent). Cr 3.

EDU 300 Introduction to Teaching in the Early Elementary Grades

This basic course is designed to provide an overview of curriculum, methods and materials utilized in early elementary education. Emphasis will be placed on teaching learning theory, learning styles, approaches to school and classroom organization, parent involvement, the teacher as a human being and the hidden curriculum. Students will work independently in a modular approach for one segment of this course. Cr 3.

EDU 301 Elementary School Curriculum

This course is designed to provide an overview of the influences, methods, and materials that affect curriculum designs in the intermediate grades. Emphasis is given to four factors affecting curriculum development: (1) goals and objectives; (2) sources of content; (3) teaching strategies; and (4) evaluation. Prerequisite: HRD 333J. Cr 3.

EDU 303 Developmental Reading I

A basic course encompassing the development of literacy. Content includes three major stages of reading progress, informal diagnostic tech-

niques, and general awareness of instructional approaches and options. Case studies are used to illustrate characteristics of readers at each stage of literacy acquisition. Cr 3.

EDU 304 Practicum in Elementary School Mathematics

A field-based course conducted primarily in the setting of actual elementary school classes. After several mathematics workshop sessions, the students will prepare and then teach several lessons in elementary school math classes. All planning and teaching will occur with guidance of the professor and the public school cooperating teacher. Prerequisite: MAT 131D. Cr 2.

EDU 305 Teaching Elementary School Mathematics

The content of the course will focus on developing techniques for teaching mathematics to elementary grade pupils. Conducted in a setting of activity-oriented sessions, special attention will be devoted to explanations for children about the fundamentals of mathematics, diagnosing mathematical difficulties, organizing various modes of instruction, and exploring ways to enrich the curriculum. Prerequisite: MAT 131D. Cr 3.

EDU 307 Practicum in Elementary Science

A field-based methodology course conducted primarily in an elementary school. After several science workshop sessions students prepare and teach sequential lessons in the actual K-6 classroom setting under the supervision of University staff and cooperating public school teachers. Cr 2.

EDU 308 Science for Children

An alternative to EDU 307. This course is conducted in a University science resource center and provides opportunities for students to apply learning theory by exploring current science curricula. Emphasis is on content analysis and comparison and on implementation in public classrooms. A field experience is included whenever possible. Recommended prerequisite: EDU 210. Cr 3.

EDU 310 Preparation of Classroom Instructional Materials

This lecture-laboratory course involves students in the creation of instructional materials using techniques such as dry mounting of flat pictorial materials, professional quality lettering, rudimentary photography and processing (including use of the darkroom), and the production of transparent projectuals. Lab fee \$20.00. Cr 3.

EDU 311 Practicum in Language Arts

A field-based course featuring recent methods and materials to the teaching of communication skills. Topics include spelling, handwriting, listening, creative expression, oral and written reporting. Cr 2.

EDU 312 Teaching Language Arts in Elementary School

Recent methods and materials basic to the teaching of communication skills. Topics include spelling, handwriting, listening, creative expression, oral and written reporting. Use of tapes, records, filmstrips, and contemporary language arts books for the elementary school. Cr 3.

EDU 316 Introduction to Learning Disabilities

This course is designed to serve as an introduction to the reasons why some children have difficulty in school. In pursuit of this goal, it will survey the field of exceptionality in general, and will focus specifically on origins, detection, and strategies of intervention for disabilities in the information processing model. Cr 3.

EDU 319 Measurement and Evaluation

Construction, selection, and use of educational achievement tests, including diagnostic and survey instruments. Skill in writing essay and objective types is developed. An inquiry into the validity and reliability of typical standardized tests. Elements and uses of statistics; tabulation of data; measures of central tendency, variability, and correlation. Cr 3.

EDU 320 Practicum in Developmental Reading II

A field-based methodology course featuring concepts introduced in Developmental Reading I. Students are guided in designing specific instructional activities that correspond to the major stages of reading progress. Empirical demonstrations, methods, and materials for teaching reading are stressed. Prerequisite: EDU 303. Cr 2.

EDU 321 Developmental Reading II

This course builds upon the concepts introduced in Developmental Reading I. Students are guided in designing specific instructional activities that correspond to the major stages of reading progress. Empirical demonstrations, methods, and materials for teaching reading are stressed. Prerequisite: EDU 303 or its equivalent. Cr 3.

EDU 322 Remedial Reading

The course presents typical reading disabilities, including methods for diagnosing and planning corrective strategies. Consideration is given to methods and techniques appropriate for general classroom use. Prerequisite: EDU 303 or its equivalent. Cr 3.

EDU 323 Independent Study in Education

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, or an artistic or technical creation reflecting a high caliber of performance. May not be used as a substitute for currently described courses. Cr Var.

EDU 324 Student Teaching

Full-time student teaching during the senior year is provided for one semester under direct supervision in off-campus situations for all who meet requirements. Opportunities for student teaching include: elementary, secondary mathematics, art, music, industrial arts, and vocational education. Prerequisites: vary according to major field of study. See curriculum listing in catalog. Applications due in the office of the Director of Clinical Experiences by February 1 of the junior year. Cr 12.

EDU 325 Internship

Year-long internship during the junior and senior year is provided under direct supervision in off-campus teaching/learning centers for all who meet requirements. Professional courses are offered concurrently with internship. Opportunities for internship are available for elementary majors only. Cr 12.

EDU 326 Seminar in Elementary Education

A study of issues in elementary education; school law; professional and ethical procedures; organization of student teaching; and teacher relationships with schools, community, and state. Visiting lecturers participate. Concurrent: enrollment in EDU 324 or EDU 325. Cr 3.

EDU 330 Teaching Strategies

This course features the instructional approaches and techniques that will enable a teacher to translate the content of a curriculum into teaching/learning activities for the classroom. Emphasis will be placed on developing teaching strategies with respect to: planning, modes of instruction, classroom management, grouping schemes, utilization of resources, and evaluation. Cr 3.

EDU 331 Teaching Strategies and Seminar

A two-part field-based seminar in elementary education. Part one is a week-long workshop which provides an introduction to Internship, basic teaching strategies, and classroom management. Part two is a weekly seminar conducted by the Internsite coordinators, discussing issues in school law, professional and ethical procedures, and the teacher relationships with schools, community, and state. Concurrent enrollment with Internship Enabling Semester. Cr 3.

EDU 335 Exceptional Students in the Classroom

This course shall serve as an introduction to the unique characteristics and needs of exceptional students in grades K-8. Legislation and its implications, roles and responsibilities of

the regular classroom teacher, resources and characteristics of exceptional students shall be discussed. Cr 3.

EDU 336 Children's Literature

This course emphasizes a creative, interdisciplinary approach to children's books, an understanding of the interests and developmental tasks of the child, and, by precept and example, methods of individualizing reading. The student will be expected to read children's books widely and in depth. Prerequisite: junior standing. Cr 3.

EDU 357 Practicum in Elementary Social Studies

A field-based methodology course, conducted primarily in elementary/middle school. The content of this course will focus on teaching strategies appropriate for social studies. Emphasis is on content analysis and curriculum development. Cr 2.

EDU 358 Teaching Social Studies

The content of this course will focus on teaching strategies appropriate for social studies. Emphasis is on content analysis and curriculum development. Cr 3.

EDU 360 Microcomputer Applications in Education

This course is designed to orient the pre-service teacher with the terminology, operation, evaluation, and applications of microcomputers, hardware, and software, as related to American educational systems. Additionally, the course will deal with traditional electronic and electro-mechanical media as related to modern learning processes. Cr 3.

EDU 363 Emotional Problems of Exceptional Children

This course is designed to offer a cross-categorical view of exceptionality with emphasis on disabilities in the affective domain. Origins, detection, prevention, and strategies of intervention will be treated. Cr 3.

EDU 366 Practicum in Learning Disabilities

This course is designed to provide students with an advanced pre-professional experience with learning-disabled children. This experience is served coterminously by a seminar which provides leadership in discussion activities to assist students in reflecting on experiences and viewing them from various perspectives. Prerequisite: EDU 316. Cr 3.

EDU 368 Introduction to Communication Disorders

The common speech and language disorders found in school children will be discussed. For each disorder the probable causes, symptoms, and methods diagnosis and remediation will be covered. The course will also include the basic principles of articulatory phonetics. Cr 3.

EDU 399 Methods and Materials for Teaching Learning Disabled

This course reviews approaches and materials concurrently used for teaching children with learning problems. Remediation methods for perceptual, motor, cognitive, communication, and academic skills will be covered as well as ways to modify existing curriculum to meet existing needs. Prerequisite: EDU 316. Cr 3.

EDU 400 Seminar in Critical Issues in American Education

This seminar is devoted to the study of critical issues in American education examined from social, political, legal, historical and philosophical perspective. Students will critique and evaluate existing and proposed educational policy as it relates to the role of the school and

the professional educator in contemporary society. Active student participation will be emphasized through individual and small group problem solving techniques and issues resolution activities. Designed for senior education majors who have completed their professional sequence and internship or student teaching experience. Cr 3.

EDU 499 British Exchange

A cooperative program between the College of Education of USM and King Alfred's College in England. Students may elect to take up to 15 credits per semester with prior USM departmental approval. Information about this program may be obtained in the Office of International Studies.

*Physical Education Courses***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. Practical and written tests will be given. 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, and game situations 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 re-

ceives 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

Using the Gorham campus as a base, the student will embark on a unique wilderness experience, designed toward self-discovery through participation in challenging activities. A group of 12 students will participate in a general orientation on campus, then be taken off to start expeditions of backpacking, canoeing, rock climbing, rappelling, mountain rescue, and survival. Wilderness skills will be integrated with experience in self-discovery, and process of experiential outdoor education which

can be later channeled into everyday life and future teaching situations. Permission of instructor. A 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 (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. 26-day program. Cr 6.

PHE 353 Teacher Training—

Experiential Education—

Hurricane Island Outward Bound School

A 28-day course for educators designed to blend the lessons of experiential education with more traditional forms of learning. Students will participate in a sailing expedition

with instruction in developing teaching styles, methods of experiential education in inside/outside the classroom, improving student/teacher relationship and leadership training. Fee course. 28-day program. Cr 6.

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 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 child birth, emergency rescue and transfer, and CPR. Successful completion of the course requirements will lead to: Advanced Red Cross First Aid and CPR certification. Cr 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. Restricted to students in the PHE Leadership minor. Prerequisite: permission of instructor. Cr 1-3

Department of Human Resource Development

The Department is responsible for courses in human development and family studies. It provides graduate programs in adult education, counselor education, and community agency and rehabilitation counseling. For information regarding graduate programs, please consult the Graduate Catalog. Undergraduate courses offered by the Department include courses in human development and educational psychology.

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 mediation, dream work, and simulated vision guests. 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 reference to the facilitation of effective teaching and learning. Prerequisite: upperclass status.

Cr 3.

HRD 500 Human Interaction Skills

This introductory course in selected communication skills is appropriate for persons considering careers in the helping professions, individuals in positions with personal respon-

sibility, or for those otherwise concerned with developing effective communication. Literature from the human relations field will be the source of basic interaction skills; these skills will be practiced by students using video vignettes, simulations, and communication decoding activities. Application of the skills to various human interaction settings will be addressed. This course may not be taken in lieu of HRD 620 for students matriculated in the Counselor Education master's program.

Cr 3.

HRD 501 Strategies and Techniques in Classroom Management

This course will consist of a variety of strategies, techniques, and philosophical issues related to adult-child relationships. The focus of the course provides both a theoretical base and practical experience for dealing with classroom and school-related issues.

Cr 3.

HRD 502 The Family: Implications for Educators

This course is designed to review selected topics in the area of family life that are relevant to educators. The course will provide a multi-disciplinary overview of major theories of family behavior, precursors to marital and family life, and the variability of family life across the life span. Consideration will be given to such issues as parenting styles, sibling relationships, effects of divorce, single-parent families, blended families, family violence, and substance use, abuse, and dependence within the family.

Cr 3.

HRD 530 Death, Dying and Bereavement

This course examines the phenomenon of death in modern society. Issues such as the meaning of death, the dying process, survivorship, suicide and how death affects individuals of various ages are treated. Special attention is paid to the role of the professional in death education. Prerequisite: None.

Cr 3.

Lewiston-Auburn College

Chief Executive: Harlan A. Philippi, 51 Westminster Avenue, Lewiston

The Lewiston-Auburn College of the University of Southern Maine is designed to serve as a resource to its community and to its region. Striking a balance between the liberal arts and professional studies, courses will provide the intellectual skills necessary to understand the issues and problems of the New England region and the region's role in national and international affairs. The curriculum will be 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 work place, 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 will be designed so that it too can change with the times.

Baccalaureate degree programs to be offered in the future at the Lewiston-Auburn College are industry and technology; human and health services; arts and humanities; natural and applied sciences; social and behavioral sciences.

Program and Requirements

B.S. Degree in Management and Organizational Studies

In addition to completing the course requirements specific to the major, all baccalaureate degree students must meet the proficiency requirements of the University of Southern Maine as well as complete the Core curriculum. The total number of credits under the Core curriculum is 34. Students may also select 6 hours of courses of their choice but which are not part of the Core.

The management and organizational studies degree program will offer required and elective courses on the nature of organizations and the theory and practice of management. Required courses will include: Principles of Economics; Principles of Accounting; Mathematics; Statistics; as well as specific management and organizational studies courses as outlined below. This major has a minimum requirement of 45 credit hours of coursework.

Unique to this degree program is the concentration in New England Studies. The purpose of the New England Studies concentration is to provide a means to integrate professional study and the study of the liberal arts. The concentration will focus on the historical and cultural heritage of Maine, the New England region, and the nation as a means of providing a context for the understanding of contemporary issues. The New England Studies concentration is composed of a minimum of 24 hours of coursework that includes study in history, history-focused art, and literature, in addition to two courses specifically designed for the concentration, Culture and Society in New England and a seminar in New England Studies.

Requirements for Major

MOS Core

MOS	300	Introduction to Organizations and Their Management
MOS	301	Laboratory in Organizational Analysis
MOS	385	Internship
MOS	386	Field Project
MOS	400	Seminar in Organization and Modern Society

A minimum of one course from each of the three elective fields. The MOS Core is composed of a minimum of 24 credits.

MOS Electives

A minimum of 7 upper-division courses that are either within MOS or are MOS-approved electives. Four of the 7 courses must be Lewiston-Auburn College courses.

New England Studies

24 credit hours of approved coursework including two upper-division courses, Culture and Society in New England and Seminar in New England Studies.

Core Courses

MOS 300 Introduction to Organizations and Their Management

Overview of basic managerial processes. Planning, organizing, staffing, financial control, human resource management, and decision making are among the areas covered. Prerequisite: junior standing or consent of the instructor. Cr 3.

MOS 301 Laboratory in Organizational Analysis

Examines applied techniques of organizational analysis such as flow charting, task analysis, decision trees, and survey feedback. Students do a group project based on the application of a technique. Prerequisites: MOS 300 and MAT 120 or PSY 201 (or equivalent). Cr 3.

MOS 385 Internship in Management and Organizational Studies

Prerequisites: MOS 300 and two 300/400 level MOS courses. Cr 3-6.

MOS 386 Field Project in Management and Organizational Studies

Prerequisite: MOS 301. Cr 3-6.

MOS 400 Seminar in Organizations and Modern Society

Explores various dimensions of the role that organizations play in the social system. The course is taught in a seminar format and students prepare a research paper which is presented to the class. Prerequisites: MOS 300 and MOS 301. Cr 3.

Elective Fields

Organizational Management

MOS 402 Administrative Theory and Behavior

Review of basic theories of administration and research on the dynamics of individual and group behavior within organizations. Prerequisites: MOS 300 and senior standing. Cr 3.

MOS 404 Organizational Finance

Assesses the theory and practice of financial management with an emphasis on the relationship between financial decision making and organizational policy and strategy. Prerequisite: ACC 201. Cr 3.

MOS 312 Managing Human Resources

Focus on the procedures and processes associated with the management of human resources within organizations. Topics include

equal opportunity, job analysis, personnel systems, and organization development. Prerequisite: junior standing or consent of instructor. Cr 3.

MOS 316 Women, Leadership, and the Organization

Focus upon current theories related to leadership and the organization that will include an examination of situational and visionary leadership models and the implications these models have for women (as well as men) as managers and members of an organization. Prerequisite: junior standing or consent of instructor. Cr 3.

Public Affairs

MOS 322 Public Policy and Administration

Examines the basic processes through which public policy is formulated, adopted, and implemented in the United States. Prerequisite: junior standing or consent of the instructor. Cr 3.

MOS 325 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. Prerequisite: One course in American government field or equivalent practitioner experience. Cr 3.

MOS 422 Policy Analysis

The approaches used to explore public policy alternatives and assess the impact of policy upon society. Examples cover a variety of policy areas such as human services, environmental protection and urban development. Prerequisites: MOS 301 and MAT 120, PSY 201 (or equivalent). Cr 3.

Human Services

MOS 330 Society and the Individual

Examines human behavior and the social environment. Focus on the interrelationships among physical, biological, psychological, and social forces in their influence upon human development. Prerequisite: junior standing or consent of the instructor. Cr 3.

MOS 335 Social Policy

A historical and contemporary review of human service issues, policies, and programs. Prerequisite: MOS 330 or equivalent. Cr 3.

MOS Electives

MOS electives will include a number of courses from the University of Southern Maine and the University of Maine at Augusta. A listing of these approved courses will be available at the beginning of each semester.

MOS 426 Managing Human Services

Analysis of management practices in human service agencies, psychiatric and general hospitals, nonprofit organizations, and other service delivery systems. Prerequisites: MOS 330 or equivalent and introductory psychology or sociology course. Cr 3.

School of Business, Economics and Management

Dean: Richard J. Clarey; *Associate Dean:* Robert W. Findlay
Assistant to the Dean: Margaret Palmer; *Academic Counselor:* Sharon Bannon;
Staff Associate for Undergraduate Advising: Cynthia Young; *Director, MBA Program:* Bruce H. Andrews; *Director, Center for Business and Economic Research:* Richard J. Clarey; *Senior Economist:* Carl E. Veazie; *Research Associates:* Bruce H. Andrews, D. Bradlee Hodson; *Research Assistant:* Alice Persons; *Director, Small Business Development Center:* Robert H. Hird; *Director, Institute for Real Estate Research and Education:* Valarie C. Lamont; *Associate Director:* Susan M. Jones

Department of Accounting

Chair: D. Bradlee Hodson, 118 Bedford Street, Portland;
Professors: Findlay, Jagolinzer, Potts; *Associate Professor:* Hodson; *Assistant Professors:* Ketcham, Violette, Westort

Department of Business Administration

Chair: Charles N. Greene, 212 Luther Bonney, Portland
Professors: Greene, Miaoulis, Neveu, Sturner, Wood; *Associate Professors:* B. Andrews, Boyle, Clarey, Houlihan; *Assistant Professors:* Grover, Krenzin, Lombardo, G. Parsons, H. Parsons, Richardson, T. Sanders, Voyer

Department of Associate Business Administration

Chair: Joel I. Gold, 213 Luther Bonney, Portland
Professor: McKeil; *Associate Professors:* Aiello, S. Andrews, Gold, Gutmann, Purdy; *Assistant Professors:* Kucsma, MacDonald, Manny, Palmer, J. Sanders, Westfall

Department of Economics

Chair: Robert C. McMahon, 227 Luther Bonney, Portland
Professor: Durgin; *Associate Professors:* Bay, McMahon, Phillips; *Assistant Professors:* Goldstein, Hillard, Medley

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 provides a graduate program leading to the degree of master of business administration (see Graduate Catalog for information).

Programs and Requirements

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. Concentrations within the associate program include accounting; business computer programming; management; marketing; hotel, motel and restaurant management; and real estate. Also available is a transfer 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 Vocational Technical Institute and the A.B.A. program. The fourth semester is offered on the SMVTI campus in their Culinary School. Students are enrolled at the University but attend classes at SMVTI 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 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.

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 190	—	BUS 290
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)

ENG 019 Written Business Communication (3)

Mathematics (6)—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. Either 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)

Business Computer Concentration

To continue in this concentration, a student must qualify for admission to an associate business administration program concentration, plus earn at least a grade of B (3.00) in ABU 191.

ABU 191 Mainframe Tools and Structured Programming

ABU 291 COBOL I: Application and Documentation

ABU 294 Introduction to Microcomputer Data Bases

ABU 295 Data Design and Handling

ABU 296 Business Information Systems

Business Management Concentration

ABU 243 Small Business Management

ABU 253 Human Relations in Business

ABU Program Electives (6)

General Elective (3)

Business Marketing Concentration

Retailing Option:

ABU 262 Introduction to Market Research

ABU 264 Principles of Retailing

ABU 265 Merchandising and Sales Promotion

ABU 285 Retail Internship or ABU 271 Independent Study
or ABU 243 Small Business Management

ABU Program Elective

Sales Option:

ABU 262 Introduction to Market Research

ABU 266 Salesmanship

ABU 268 Principles of Advertising

THE 170F Public Speaking

ABU 285 Sales Internship or ABU 271 Independent Study

Hotel, Motel and Restaurant Concentration (spring semester at SMVTT)

ABU	243	Small Business Management
HMR	101	Food Fundamentals
HMR	104	Hotel Law
HMR	200	Food and Beverage Management
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	Practicum — Real Estate Brokerage
ABU	226	Principles of Real Estate Finance

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 Concentration

This concentration is designed for those associate degree students who wish maximum transfer flexibility into a baccalaureate degree program. Upper-level business courses (marketing, finance, and management) are replaced with general elective courses.

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 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

Students should take no more than one course from any item below:

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. 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: economics analysis, quantitative methods, international economics, and the economics of monetary and fiscal policy.

Applied Studies

Within the four-year programs in accounting, business administration, and economics, the following opportunities are available.

Internship/Cooperative Education Program The School of Business, Economics and Management offers an Internship/Cooperative Education Program in which students, while working in business or industry, may earn academic credit. This program combines the efforts of employers and educators forming educational experiences in areas including accounting, marketing, finance production, management, and human resources development. Firms involved with the Internship/Cooperative Education Program represent such fields as public accounting, internal auditing, banking, securities and investments, retailing, and manufacturing. Frequently opportunities with nonprofit organizations also are available. Students who desire further information should contact the director of the Internship/Cooperative Education program.

Small Business Institute The School of Business, Economics and Management, through the Small Business Development Center, sponsors a program called the Small Business Institute. Juniors and seniors are selected to provide management counseling to the area's small businesses. Under the program, students counsel and advise, in cooperation with a faculty advisor and representatives of the Small Business Administration, various businesses within southern Maine. The program provides an opportunity for relevant practical application of academic principles. Students may be involved in such areas as accounting, finance, management, marketing, and production. The course carries three hours of academic credit.

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.

Admissions Requirements for Majors

Students admitted to the University will enter the School of Business, Economics and Management as baccalaureate degree candidates. However, to be admitted to a baccalaureate major within the School of Business, Economics and Management, a student must have completed at least 53 semester hours with a minimum accumulative grade point average of 2.00, and have completed one of the following sets of courses, depending upon the designated major; with a minimum accumulative grade point average of 2.00 for business and economic majors or a grade of C or better in all courses for accounting majors listed below.

Accounting Major: ENG 100C, ACC 201, ACC 301, BUS 280, BUS 290, ECO 201J, ECO 202J, MAT 110D, MAT 211, MAT 212

Business Administration Major: ENG 100C, ACC 201, ACC 202, BUS 280, BUS 290, ECO 201J, ECO 202J, MAT 110D, MAT 211, MAT 212

Economics Major: ACC 201, ECO 201J, ECO 202J, MAT 109D and MAT 110D or MAT 152D and MAT 153

An application for admission to the major in the School of Business, Economics and Management should be completed and returned to the Dean's Office.

Although actual admission 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 be admitted pending 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.

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 Principles of 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. 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.

Degree Requirements

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/or ACC 202). If a student fails to meet the 2.00 average, 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. Exceptions may be granted with approval of the Chairperson, Department of Accounting.

Bachelor of Science in Business Administration

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 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 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) (See supplementary requirements below for business administration majors only)

4. Natural Science (4)

5. Interdisciplinary COR course (3)

Supplementary Requirements

1. Mathematics (9)

a. MAT 110D Calculus for Business

b. MAT 211 Probability

c. MAT 212 Statistics

2. Social Science (6) (Business Administration Majors only)

To be selected from ANT, CRM, COM, GEO, HTY, POS, PSY, SOC, and SWO courses.

Basic Requirements for Accounting (18)

ACC 201 Principles of Financial Accounting

BUS 280 Legal Environment of Business

BUS 290 Introduction to Computers in Business

ECO 201J Principles of Macroeconomics

ECO 202J Principles of Microeconomics

*ECO 300

*To satisfy this requirement any 300 level ECO course may be selected; to satisfy the international dimension select one of the following: ECO 350 Comparative Economic Systems; ECO 351 Economic Systems of the Soviet Union; ECO 360 Economic Development; ECO 361 Applied Economic Development; ECO 370 International Trade

If only one ECO 300 level course is selected it must be taken from the above international courses.

Basic Requirements for Business Administration (18)

ACC	201	Principles of Financial Accounting
BUS	280	Legal Environment of Business
BUS	290	Introduction to Computers in Business
ECO	201J	Principles of Macroeconomics
ECO	202J	Principles of Microeconomics
ECO	elective (300-level or above)	

Major in Accounting or Business Administration

1. Common Courses (18)

BUS	320	Business Finance
BUS	340	Principles of Management
BUS	360	Marketing
BUS	371	Operations Research/Management Science
BUS	375	Production/Operations Management
BUS	450	Business Management and Policy

2. Major Field

Either

A. Accounting (21)

ACC	301	Intermediate Accounting I
ACC	302	Intermediate Accounting II
ACC	303	Intermediate Accounting III
ACC	305	Cost Accounting
ACC	313	Federal Tax Reporting
ACC	401	Advanced Accounting I
ACC	410	Auditing or ACC 415 Internal Auditing

Or

B. Business Administration (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 Soviet Union
ECO	360	Economic Development
ECO	361	Applied Economic Development
ECO	370	International Trade

Three credits from BUS electives (300-level or above)

General Electives: Accounting 23; Business Administration 20.

Minor in Business Administration

In order to be admitted to the minor in business administration, a student must have completed at least 24 credit hours with a grade point average of 2.50 (A=4.00 scale) or higher. For admission to the minor the student must have completed MAT 110D or MAT 152D with a grade of C or higher. The student must also complete BUS 290, MAT 211 and MAT 212, or MAT 362, before taking any 300-level business course (BUS 320, BUS 340, BUS 360).

A student majoring in business administration or accounting in the School of Business, Economics and Management may not minor in business administration; nor may a student with a associate degree in business earn a minor in business administration.

To fulfill the requirements for a minor in business administration, a student must complete the following courses with an overall average of at least a 2.00. A minimum of four of the following seven courses required for the minor must be taken at the University of Southern Maine.

ACC	201	Principles of Financial Accounting	3 credits
ACC	202	Principles of Management Accounting	3 credits
ECO	201J	Principles of Macroeconomics	3 credits
ECO	202J	Principles of Microeconomics	3 credits

BUS	320	Business Finance	3 credits
BUS	340	Principles of Management	3 credits
BUS	360	Marketing	3 credits

Bachelor of Science in Economics

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 CIA, ENG, FRE, GER, GRE, IAT, 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 (12)

MAT 109D Linear Systems

MAT 110D Calculus for Business

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 109D and MAT 110D, but these students must still take MAT 211 and MAT 212.

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 and HTY 338

General Electives (41)

A less mathematics-oriented B.A. degree with a major in economics is offered by the Department of Economics through the College of Arts and Sciences. (See College of Arts and Sciences section of catalog.)

Minor in Economics

A minor in economics is available to students in any major within the University. A description of requirements follows.

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.

ABU 100 Introduction to Business

An examination of the significant relationships between business and the social, political, and economic environment of our society for the purpose of evaluation of goals, values, ethics, and practices in the business world. Historical development of business and capitalism is covered. The industrial and commercial structures and functions in our society are described. Social relationships internal to the firms are explored. Special problems concerning mass production, automation, and employment are discussed along with other current and future issues and problems related to business and our society.

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. Topics discussed include inflation, unemployment, government monetary and fiscal policy to achieve full employment, and economic growth. (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. Special attention is focused on the development of a market mechanism for the exchange of goods, services, and resources within a capitalistic economy. Topics discussed include consumer preferences and consumer behavior, production theory and production costs, the monopoly firm, and resource pricing. (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 190 Introduction to Computers in Business

This course provides an introduction to the use of computer technology within business applications. IBM compatible microcomputers are the primary equipment used. Applications include word processing, data management, spreadsheets, graphics, communications, and the use of these in integrated problem solving. In addition, a general background on the role of information systems within organizations, current technology trends, ethical issues, and social considerations are discussed. Prerequisite: MAT 010.

Cr 3.

ABU 191 Mainframe Tools and Structured Programming

This course is an intensive introduction to modern mainframe computer systems, programming and data files. Mainframe system topics include Virtual Operating Systems, System Commands, Editors, and Electronic Mail. Structured Programming covers all standard control structures, arrays, functions, and subroutines. Both sequential and keyed file structures will be used throughout the programming. Prerequisites: ABU 111 and 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. Prerequisites: ABU 111 and 112. Cr 3.

ABU 213 Accounting with Computers

This course provides the student with a practical introduction to accounting applications as accomplished with a computer. General ledger, payroll, accounts receivable, accounts payable, and inventory are explored through a computer. Microcomputers and a complete accounting software package are used to provide practical experience with implementation, data entry, and report generation. The topics of system selection factors, implementation planning, acquisition, audit trails, and report analysis are also included. Prerequisites: ABU 112 and 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 include 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. Completion of this course with a grade of 75 or better satisfies the education requirement for obtaining a Maine Sales Agent License and satisfies part of the educational requirement for the associate brokers license. Cr 3.

ABU 222 Real Estate Law

A study of real estate law in general and Maine law in particular. Topics include property rights, fixtures, co-ownership, land descriptions, landlord tenant law, easements, adverse possession, land use regulation including zoning and environmental law, eminent domain, transfers by deed and at death, mortgages and other financial interests, the recording system, fair housing law, condominiums and contracts. The course will also cover various legal matters relating to Maine real estate brokerage including agency law, antitrust law and required disclosures connected with brokerage transactions. Completion of this course with a

grade of 75 or better satisfies part of the education requirements for obtaining a Maine associate real estate broker license. Cr 3.

ABU 223 Real Estate Methods

A study of the application of concepts and procedures involved in the practice of real estate. Topics include: the listing process, valuation, sale process, negotiating, contracts, mortgages, disclosures, closings, real estate as an investment, ethics, Maine license law and its application as well as describing real estate and application of land use regulations. This course will also include sales techniques, interviewing skills and personal business plans. Completion of this course with a grade of 75 or better satisfies part of the educational requirements for a Maine associate brokers license. Prerequisite: ABU 221. Cr 3.

ABU 225 Brokerage Practicum

This course emphasizes those principles specifically related to real estate brokerage. Topics include: Maine license law, contracts, disclosures, ethics, trust accounts, state and federal regulations, training and supervision, alternative financing, Maine Real Estate Commission, and closings. This course will also include areas relating to office operation. Instruction will be received through classroom lectures and field work. Completion of this course with a grade of 75 or better satisfies the educational requirement for obtaining a Maine brokers license. Prerequisites: ABU 221, 222 and 223 or Maine associate brokers license. Cr 3.

ABU 226 Principles of 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 participation, financing instruments, loan processing, defaults and foreclosures. Offered only 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 Principles of Management

A comprehensive survey of all phases of the management of industrial and business enterprises. The influence of industrial relations is interspersed with the treatment of management's technical problems. Prerequisites: ABU 101, 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 think-

ing. 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. Prerequisites: 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. Prerequisites: 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, securities regulation, antitrust law, labor law, equal employment law, and environmental law. The course stresses the

social responsibility of business and the legal and ethical framework in which business must function. Cr 3.

ABU 285 ABA Work Internship

This is our students' opportunity to apply their academic training to work experiences in the business world. The student, the SBEM, and an employer make prearranged commitments for a one-semester job in a local business organization. The work must be in an area related to the student's chosen concentration in the ABA program and must be approved in advance by the SBEM Director of Internships. *This is open only to second year students in the ABA Program.* ABU 286 may be taken after ABU 285 for a maximum of 6 credits in ABA Internship. 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 COBOL II: Advanced Program Applications

It emphasizes applying the techniques for developing and documenting a complete business program. Major focus will be on data design, non-sequential file updating, job control language, program calls, and program optimization. Prerequisites: ABU 291 and ABU 295, or permission of the instructor. Cr 3.

ABU 294 Introduction to Microcomputer Data Bases

This course is an introduction to modern relational data base and fourth generation languages on a microcomputer. It includes single and multiple file data bases, structured and non-procedural queries and reports, relating of multiple files, and the development 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 or permission of the instructor. 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 191, or permission of the instructor. Cr 3.

ABU 297 Advanced Database Systems

This course examines the design, use and management of modern database systems. The concept of 3-level databases, along with the difference between production database systems and 4th generation languages, is studied.

Baccalaureate 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. Cr 3.

ACC 202 Principles of Management Accounting

This course is designed for non-accounting majors. It deals with the selection and preparation of information which will serve to support and assist management in planning and controlling a firm's operations: the emphasis is on information needs for management decision making. Included are analysis of financial statements, statement of cash flows, cost-volume-profit analysis, budgeting, income tax considerations, and quantitative techniques integrated with more traditional approaches. Prerequisite: ACC 201. Cr 3.

ACC 301 Intermediate Accounting I

A study of accounting theory including the conceptual framework, financial statements, the accounting for cash, temporary investments, receivables, and inventories. (Sophomores may enroll on a space-available basis.) Prerequisite: ACC 201. Cr 3.

ACC 302 Intermediate Accounting II

The study of accounting theory including property, plant and equipment, intangible assets, current liabilities, long-term corporate capital, and earnings per share. Prerequisite: ACC 301, junior standing and completion of admission requirements for majors. Cr 3.

ACC 303 Intermediate Accounting III

The study of accounting theory and practice relating to pension liabilities, leases, interim reporting, segment reporting, accounting changes, price level and current value accounting, statement of cash flows, and income tax allocation, other topics. Prerequisite: ACC 302, junior standing and completion of admission requirements for majors. 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

A state-of-the-art 4th generation language is extensively used to demonstrate query and non-procedural languages, MIS and DSS concepts, and distributed workstation processing. Prerequisites: ABU 240, ABU 291 and ABU 295, or permission of the instructor. 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 13.

analysis and direct costing. Prerequisites: ACC 202 or ACC 301, junior standing and completion of admission requirements for majors. 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, junior standing and completion of admission requirements for majors. Cr 3.

ACC 401 Advanced Accounting I

The study of accounting principles and theory relating to mergers and consolidations, not-for-profit organizations, and foreign currency. Prerequisites: ACC 303, junior standing and completion of admission requirements for majors. Cr 3.

ACC 402 Advanced Accounting II

The study of accounting principles and theory related to partnerships, estates and trusts, installment sales, consignments, franchises, receiverships, retail land sales, and other miscellaneous advanced topics. Prerequisite: ACC 303. Cr 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 303, junior standing and completion of admission requirements for majors. 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 303. Cr 3.

ACC 420 Senior Seminar in Accounting

A review of APB opinions, FASB statements, SEC role in accounting, and other current issues. Prerequisites: ACC 303, senior standing and completion of admission requirements for majors. 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: senior standing and completion of admission requirements for majors.

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, securities regulation, antitrust law, labor law, equal employment law, and environmental law, and stresses the social responsibility of business and the legal and ethical framework in which businesses must function.

Cr 3.

BUS 290 Introduction to Computers in Business

This course provides an introduction to the use of computer technology within business applications. IBM compatible microcomputers are the primary equipment used. Applications include word processing, data management, spreadsheets, graphics, communications, and the use of these in integrated problem solving. In addition, a general background on the role of information systems within organizations, current technology trends, ethical issues, and social considerations are discussed.

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: BUS 290, ECO 201J, ECO 202J, ACC 201, ACC 202 or ACC 301, MAT 110D, MAT 211, MAT 212, junior standing and completion of admissions requirements for majors.

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: BUS 320, junior standing and completion of admissions requirements for majors.

Cr 3.

BUS 340 Principles of Management

A comprehensive introductory survey of the problems encountered by managers and the

practices they employ in planning, organizing, leading, and controlling organizations. The role of the general manager in business is explored, as is the behavior of other individuals and groups within business organizations. Among the various topics covered are: development of management as a discipline, motivation, power, leadership, strategic management, decision making, organizational design, job design, information and control systems, and other areas related to the functions and process of management. Prerequisites: ECO 201J and ECO 202J, junior standing and completion of admissions requirements for majors.

Cr 3.

BUS 346 Personnel Management

The selection, training, and management of personnel in private and public sectors, including elements of wage and salary administration, testing, training, and labor relations. Designed for the student interested in administration, office management, or personnel work in education, business, engineering, public service, and other fields. Prerequisites: BUS 340, junior standing and completion of admissions requirements for majors.

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, junior standing and completion of admissions requirements for majors.

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, junior standing and completion of admissions requirements for majors.

Cr 3.

BUS 360 Marketing

An introduction to the field of marketing normally through the use of a computer simulation game. The concepts of market segmentation, marketing mix strategy, and market systems development are presented along with an analysis of consumer behavior and the need for marketing research. Prerequisites: ACC 201, ECO 201J, ECO 202J, BUS 290, MAT 110D, MAT 211, MAT 212, junior standing and completion of admissions requirements for majors.

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, junior standing and completion of admissions requirements for majors. 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, BUS 371, junior standing and completion of admissions requirements for majors. 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, junior standing and completion of admissions requirements for majors. Cr 3.

**BUS 371 Operations Research/
Management Science**

A survey of quantitative methods and tools 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, applied stochastic processes, dynamic programming and non-linear programming. Prerequisites: BUS 290, MAT 110D, MAT 211, MAT 212, junior standing and completion of admissions requirements for majors. 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 the preparation for and conduct of a civil lawsuit, a brief discussion of criminal law, and a broad overview of contracts, agency, negotiable instruments, partnerships, corporations, secured transactions, and bankruptcy. This course is

intended to provide a broad overview of business law and the Uniform Commercial Code. Prerequisite: BUS 280 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, business organization, and tax planning and estate planning. This course is designed for students who want to do in-depth analysis of selected areas in business law. Prerequisite: BUS 280, junior standing and completion of admissions requirements for majors. Cr 3.

**BUS 391 Computer-Based Decision
Modelling and Simulation**

A more 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: BUS 290 or COS 160, MAT 211, MAT 212, junior standing and completion of admissions requirements for majors. Cr 3.

**BUS 395 Cooperative Education/Internship—
Business Administration I**

The student has the opportunity to relate academic knowledge to practical experience in the business world. The University can make arrangements with certain institutions and/or industries to employ students to fill specific jobs on a semester basis. The work experience will be related to the student's major and increases in difficulty and responsibility as the student progresses through the academic curriculum. The work experiences are approved in advance by the director. Prerequisite: junior standing and completion of admissions requirements for majors. Cr 1-5.

**BUS 396 Cooperative Education/Internship—
Business Administration II**

Open to second-semester juniors and seniors in the School of Business, Economics and Management with permission. Prerequisites: BUS 395, junior standing and completion of admissions requirements for majors. Cr 1-5.

**BUS 397 Cooperative Education/
Internship—Business Administration III**

Open to seniors in the School of Business, Economics and Management with permission. Prerequisites: BUS 396, junior standing and completion of admissions requirements for majors. Cr 1-5.

BUS 445 Compensation Administration

It provides a basic understanding of the tasks, responsibilities, and objectives of compensation and managing compensation programs. Techniques for determining wages, salaries, and benefits and their application to actual

situations in order to design, develop, and administer compensation programs will be covered. The implications of process and policies on parties internal and external to the organization will be investigated. Prerequisites: BUS 346, junior standing and completion of admissions requirements for majors. 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, junior standing and completion of admissions requirements for majors. 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, junior standing and completion of admissions requirements for majors. 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. Prerequisites: junior standing and completion of admissions requirements for majors. Cr 1-6.

BUS 491 Small Business Institute

This course is designed to allow the student to apply the concepts of business administration, economics, and accounting to operational problems in the field. Assignments are arranged by the School of Business, Economics and Management in conjunction with agencies such as the Small Business Administration for an off-campus consulting experience in a business firm or other appropriate institutional setting. Prerequisites: junior standing and completion of admissions requirements for majors. Cr 3.

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 operational activities of a modern market economy which is involved in the

transformation of scarce economic resources into the goods and services demanded by consumers. Topics discussed include inflation, unemployment, government monetary and fiscal policy to achieve 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 productivity 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. Primary emphasis will be placed upon optimization theory and techniques for solving systems of simultaneous equations. 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. Topics covered include: the bivariate linear regression model, heteroscedasticity, multicollinearity, serial correlation of errors, and two-stage least squares. 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

The course provides an overview of various perspectives on the U.S. economic system, its dynamics, problems, and its relation to the political sphere. Topics treated include: inequality and discrimination; crisis and state intervention; growth and the environment; military spending, productivity and growth; the U.S. and the world economy; 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, labor markets, 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 330 Urban Economics

This course seeks to introduce the study of urban economics through a three phase approach. Phase one provides a conceptual and historical background for analyzing the urban economy. Phase two outlines basic theoretical models of urban spatial structure, land use, transportation needs, demographic change, economic activity and employment analysis linking urban economics to the content of micro and macro economics courses. Phase three applies the tools of analysis developed in part two and the background presented in part one to several of the most urgent urban problems of the 1980s. 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 macro-economics. 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 Soviet Union

A study of the development, institution, and structure of the Soviet economy. Emphasis on current theories and problems of central planning. 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. Topics including the proper role of government, determinants of productivity change, domestic and foreign investment, and foreign competition are examined as sources of problems. Free market, traditional monetary and fiscal, as well as new "industrial" policies are considered as potential solutions. 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 naturebooks 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.

School of Applied Science

Dean: Brian C. Hodgkin, 106 Science Building, Portland

Associate Dean: Arthur O. Berry, 103 Technology Center, Gorham

The School of Applied Science is an academic unit of the University delivering science, engineering, computer science, and technology programs which serve the needs of southern Maine. 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 Immunology. Through these departments, the School offers bachelor's and master's degrees, including the B.S. in computer science, electrical engineering, industrial technology, and vocational technology. The School provides industrial arts and vocational/occupational courses in support of B.S. degrees in industrial arts education and vocational/occupational education offered by the College of Education. The Department of Engineering also offers introductory undergraduate courses in engineering to prepare students for transfer to engineering programs at the University of Maine or elsewhere. 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 a cooperative arrangement, 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.

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.

Department of Computer Science

Chair of the Department: Charles Welty; 224 Science Building, Portland
Professor: Welty; *Associate Professors:* Gabrovsky, Heath, Schroff; *Assistant Professors:* Briggs, Vijaykumar; *Instructor:* MacLeod

The Department of Computer Science offers a four-year program leading to a B.S. in computer science. In cooperation with the Department of Mathematics, it offers an additional major in computer science and mathematics. Students may receive either a B.S. in computer science with an additional major in mathematics or a B.A. in mathematics with an additional major in computer science. The Department also provides computer science major courses for a B.S. in education.

All students are reminded that, in addition to meeting departmental requirements for a major; they must also meet the University Core curriculum requirements.

Programs and Requirements

Bachelor of Science in Computer Science

The minimum number of credits (exclusive of the University's Core curriculum) required for the major: 56. Total minimum credits to graduate: 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 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	250	Computer Organization
COS	251	Software Systems
COS	280	Discrete Structures
COS	285	Data Structures
COS	360	Programming Languages
COS	480	Introduction to Theory of Computing
MAT	152D	Calculus A
MAT	153	Calculus B
MAT	380	Theory of Probability and Statistics

B. Successful completion of five additional COS courses numbered 300 and above.

C. Successful completion of two additional mathematics courses with second digit 5 or greater, excluding MAT 290 and MAT 390.

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

Bachelor of Science in Computer Science with an Additional Major in Mathematics

Requirements for this degree are identical to those listed in the Mathematics Department under the heading, "B.A. in Mathematics with an Additional Major in Computer Science." See that section of this catalog.

Minor in Computer Science

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

A minor in computer science may be obtained by successfully completing the courses listed below 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.

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. 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 (PASCAL). Cr 3.

COS 230 Programming in COBOL

A study of the programming language used primarily in business. Prerequisite: COS 140 or COS 160. Cr 3.

COS 240 Programming in PL/1

A continuation of the study of programming principles through study of the PL/1 language. Prerequisite: COS 140 or COS 160. Cr 3.

COS 245 Assembly Language Programming

The basic elements of IBM System 370 architecture will be presented. IBM System 370 assembly language will be presented in detail. Prerequisite: COS 160. Cr 3.

COS 250 Computer Organization

The course covers the basic hardware and software that make up a computer system. Subjects include logical design, micro programming, machine languages, assembly languages, and operating systems. Prerequisite: COS 161. Normally only offered in the fall semester. Cr 3.

COS 251 Software Systems

This course is a continuation of COS 250. The course examines the software layers that comprise a computer system in the context of specific programming environments. Topics will include UNIX, MS-DOS and C. Prerequisite: COS 250. Cr 3.

COS 280 Discrete Structures

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 concepts of data, strings, stacks, arrays, and lists. Representations of trees and graphs. Storage systems and structures, searching and sorting techniques. Multi-linked structures. Performance comparison of algorithms for sorting and searching. Course requirements include a substantial programming component. Prerequisites: COS 250 and COS 280 or permission of instructor. Normally offered only in spring semester. 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. Normally only offered in the spring semester. Cr 3.

COS 357 File Organization

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. Some concepts of how file organization supports data base systems may also be included. Prerequisite: COS 285. Cr 3.

COS 360 Programming Languages

An examination of basic concepts and special facilities in higher-level programming languages via the consideration of several representative languages. Emphasis on scope of declarations, storage allocation, data structure variety, binding time of constituents, and control organization. Introduction to the formal definition of programming languages. Prerequisites: COS 251, COS 285. Normally offered only in the fall semester. 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

A study of methods applied to large-scale software development, including topics such as project management, software design, verification and validation. Students will apply methods to a large programming project. Prerequisites: COS 251, COS 285. Cr 3.

COS 374 Numerical Analysis I

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 450 Operating Systems

Computer resource management. Topics include an in-depth study of concurrent cooperating processes; virtual systems; segmentation and paging; I/O device handling; protection and security; deadlock; race conditions. Prerequisite: 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

Introduction to the basic methods and principles of database management systems (DBMS). Topics covered: DBMS objectives and architecture, data models, data definition and manipulation languages, query languages, database application and design development tools. Prerequisite: COS 285. Cr 3.

COS 469 Introduction to Compiler Construction

Definition of a language, context-free grammars, rigorous definition of a typical small language in BNF, design and implementation of a compiler for programs within this language. Prerequisites: COS 251, COS 285. Cr 3.

COS 472 Artificial Intelligence

An introduction to the underlying concepts and applications of intelligent systems. Topics include computer representations of knowledge; heuristic search techniques and computer problem solving; learning; game playing; automatic theorem proving; pattern recognition; natural language question-answering. Prerequisites: COS 280, COS 285. Cr 3.

COS 480 Introduction to Theory of Computing

Introduction to the basic concepts of finite automata and Turing machines; finite state acceptors and regular sets; linear sequential circuits, complexity results for finite networks, elementary notions of recursive and recursively enumerable sets. Prerequisite: COS 280 or MAT 290. 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. Prerequisites: junior or senior standing and permission of the department chairman and instructor. Cr 1-3.

CSO 200-201, 300-301, 400-401 Cooperative Education in Computer Science

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. Students already employed may qualify. 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. Prerequisite: open to qualified students, subject to availability of suitable jobs. Course is graded on a pass-fail basis only. Cr 3.

Department of Engineering

Chair of the Department: Brian C. Hodgkin, 106 Science Building, Portland;
Associate Professors: Hodgkin, Knudsen, Smith; *Adjunct Assistant Professors:*
Most, Parent, Parker; *Faculty Associate:* Murray

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 in electrical engineering, the University of Maine master of science degree programs offered at the University of Southern Maine, and first-year engineering curricula for several engineering specialties.

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 designed to provide a broad base from which later specialization can occur.

Requirements

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	140	Programming in FORTRAN
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OR

COS	160	Structured Problem Solving: PASCAL
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Basic Science

CHY	113, 114	Principles of Chemistry I
PHY	121K, 122K, 123, 124	General Physics I and II

One basic science elective selected from an approved list

Electrical Engineering I, II

ELE	171	Microcomputer Architecture and Applications
ELE	172	Digital Logic
ELE	210, 211	Electrical Circuits I, II
ELE	262	Physical Electronics
ELE	300	Seminar
ELE	314	Linear Circuits and Systems
ELE	323	Energy Transmission and Conversion
ELE	342, 343	Electronics I, II
ELE	351	Fields and Waves
ELE	400	Design Project

Mechanical Engineering

MEE	150	Statics
MEE	230	Thermodynamics

Technical Electives

At least 3 electrical engineering elective courses are required. The fourth required technical elective can be chosen from physics, chemistry, mathematics, computer science, electrical engineering, and other engineering disciplines as available.

Other

ENG	100C	College Writing
THE	170F	Public Speaking
ENG	307	Technical Writing

Credits to graduate: 131

Grade point average: 2.0 overall and 2.0 in 300-level and above electrical engineering courses.

II. First-year Transfer Program for Several Engineering Disciplines

The first-year 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 at the University of Southern Maine are eligible to transfer to the University of Maine for their second, third, and fourth years. The following curricula are offered at the University of Maine: agricultural engineering, chemical engineering, chemistry, civil engineering, computer engineering, electrical engineering, engineering physics, forest engineering, mechanical engineering, pulp and paper technology and surveying engineering.

The first-year program includes science, mathematics, computer programming, and English composition as common elements. Other courses depend on the engineering disciplines. Humanities and social science courses may be taken as time permits. Common courses include: Calculus (MAT 152D, 153), General Physics (PHY 121K, 122K, 123, 124), Principles of Chemistry (CHY 113, 114 and in some cases 115, 116) and English (ENG 100C). The following are also required for the indicated discipline, and are available at the University of Southern Maine.

Agricultural and Forest Engineering

MEE	150	Applied Mechanics: Statics
ITT	231	Technical Graphics

Chemical Engineering

COS	140	Programming in FORTRAN
or		
COS	160	Structured Problem Solving: PASCAL
CHY	115, 116	Chemical Principles II

Civil Engineering and Engineering Physics

COS	160	Structured Problem Solving: PASCAL
ITT	231	Technical Graphics

Electrical and Computer Engineering

COS	140	Programming in FORTRAN
or		
COS	160	Structured Problem Solving: PASCAL
ELE	171	Microcomputer Architecture and Applications
ELE	172	Digital Logic

Mechanical Engineering

COS	140	Programming in FORTRAN
or		
COS	160	Structured Problem Solving: PASCAL
ITT	231	Technical Graphics
MEE	150	Applied Mechanics: Statics

ELE	210	Electrical Circuits I
ELE	211	Electrical Circuits II

Surveying Engineering		
COS	160	Structured Problem Solving: PASCAL
GEY	111K, 112K	Physical Geology

III. Master of Science in Electrical Engineering

At the graduate level, the University of Maine master of science and master of engineering in electrical engineering degree programs are available. The University of Southern Maine graduate catalog should be consulted for details.

ELE 171 Microcomputer Architecture and Applications

The microcomputer and its component parts including microprocessors, registers, memory and I/O. Programming and applying the microcomputer in engineering systems. Lecture 3 hrs, Lab. 2 hrs. Cr 4.

ELE 172 Digital Logic

Introduction to the design of logic systems; combinatorial and sequential logic: extensive use of SSI and MSI in design of logic systems. Lecture 3 hrs., Lab. 2 hrs. Cr 4.

ELE 210 Electrical Networks I

Basic circuit laws and theorems, natural and forced responses of first and second order systems, phasor concepts, application of basic circuit theorems to steady-state a-c networks. Characteristics and proper use of basic circuit instruments. Introduction of the PC as network analysis tool. Prerequisites: MAT 153, PHY 123. Lecture 3 hrs., Lab./Comp. 2 hrs. Cr 4.

ELE 211 Electrical Networks II

Steady-state power concepts, analysis of poly-phase circuits and magnetically coupled circuits, frequency domain analysis, network representation using two-port parameters, Fourier series applications. Prerequisites: MAT 252, 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. Corequisite: MAT 350. Lecture 3 hrs. Cr 3.

ELE 300 Seminar

Exploration of career opportunities, organizational structure of industry and professional responsibilities. Lecture 1 hr. (Pass/fail grade only). Cr 1.

ELE 314 Linear Circuits and Systems

Analysis of continuous and discrete-time systems, Fourier and Laplace transforms, state variables, convolution, z-transforms, fast Fourier transforms. Prerequisites: ELE 211, MAT 350, and COS 160 or COS 140 or equivalent. Lecture 3 hrs. Cr 3.

ELE 323 Energy Transmission and Conversion

Basic concepts related to electrical power system, power system components and measurements. Prerequisite: ELE 210. Lecture 2 hrs., Lab. 2 hrs. Cr 4.

ELE 342 Electronics I

Fundamentals of digital electronic devices and circuits; diodes, BJT's, monolithic IC fabrication, logic gates and families, combinational and sequential logic circuits, FETs, LSI fundamentals. Prerequisites: ELE 211, ELE 262. Lecture 3 hrs, Lab. 2 hrs. Cr 4.

ELE 343 Electronics II

Fundamentals of analog electronic circuits and systems; analog diode circuits, amplifiers, feedback, frequency, response, operational amplifier characteristics and applications. Prerequisite: ELE 342. Lecture 3 hrs., Lab 2 hrs. Cr 4.

ELE 351 Fields and Waves

Static electric and magnetic fields; field mapping; 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. Prerequisites: MAT 350, PHY 123. Lecture 3 hrs. Cr 3.

ELE 383 Communications Engineering

Basic principles of modern communication engineering; methods of analysis; modulation techniques; effects of noise; information transmittal. Prerequisites: MAT 350, ELE 314. Lecture 3 hrs. Cr 3.

ELE 394 Electrical Engineering Internship

Work experience in electrical engineering. May be taken more than once. Prerequisite: permission. (Pass/fail grade only). Cr 1-3.

ELE 400 Design Project

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. An oral and written report is required. This is a two-semester course. Pre-

requisites: (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 6.

ELE 425 Control Systems

Theory and operational characteristics of electromechanical control devices, linear modeling of nonlinear components, transfer functions and their use in analysis of feedback control systems; use of microcomputer for control. Prerequisite: ELE 323 or permission. Lecture 3 hrs. Cr 3.

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, metal oxide semiconductor field effect transistors (MOS-FETS) and capacitors and junction field effect transistors (JFETS). Diffusion, epitaxial growth, oxidation and photolithography processes appropriate for device fabrication are also discussed. Prerequisite: ELE 262. Lecture 3 hrs. Cr 3.

ELE 464 Microelectronics

Design principles and fabrication techniques of hybrid and monolithic integrated circuits. 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 471 Microprocessor Applications Engineering

Application of microprocessors to the solution of design problems, including hardware char-

acteristics, peripheral control techniques and system development. Prerequisites: ELE 171, 172, Lecture 2, Lab 3. Cr 3.

ELE 475 Sequential Logic Systems

Methods of design and test for logic systems with memory. Sequential machine flow charting and algorithmic approaches to design. Test procedures and the design of system tests. Prerequisite: ELE 172. 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 and fast Fourier transforms. Emphasis is placed on using the computer to both design and realize various signal processors. Prerequisites: COS 160 and ELE 383. Lecture 3 hrs. 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 courses are offered as part of the electrical engineering program.

MEE 150 Applied Mechanics: Statics

The study of force systems and equilibrium, structural models, friction, distributed forces. Designed to develop the ability to analyze and solve engineering problems. Lecture 3 hrs. Cr 3.

MEE 230 Thermodynamics I

Energy and energy transformations; the First and Second Laws applied to systems and to control volumes; thermodynamic properties of systems, availability of energy. Prerequisite: MAT 153. Lecture 3 hrs. Cr 3.

Department of Technology

Chair of the Department: Arthur Berry, Technology Center, Gorham
Professor: Berry; *Associate Professors:* Anderson, Carter, Faulkner, Kirk, W. Moore, Nannay, Zaner; *Assistant Professors:* Bazinet, O'Connor

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.

The undergraduate program in industrial arts education is designed to prepare students to organize, manage, and teach programs of industrial arts in elementary and secondary schools. Laboratory courses in energy power systems, technical communications, and materials and processes provide a technical/conceptual background.

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.

Admissions Requirements

Applicants for industrial arts 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 Industrial Arts Education

The number of credits (including the University's Core curriculum) required for the degree: 125.

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

Science/Math 6 credits

a. Math/Computer Science 3

b. Physics or Chemistry 3

In addition, students must take 6 credits of electives.

Technical (57 credits)

Required courses

ITP	100	Modern Industry
ITT	102	Introduction to Industrial Technology
ITT	103	Materials Properties and Testing
ITT	211	Electronics Technology
ITT	221	Power Systems
ITT	231	Technical Graphics
ITT	241	Graphic Reproduction
ITT	251	Material Processes—Metal
ITT	261	Material Processes—Wood
ITT	281	Computers in Industry and Technology
ITT	311	Communications Electronics
ITT	323	Control Systems
ITT	331	Engineering Design Graphics
ITT	342	Photo Offset Lithography
ITT	351	Machining and Fabrication
ITT	361	Production Manufacturing in Wood
ITT	371	Plastics Technology

Technical Electives (select any two)

Energy and Power Systems

ITT	313	Electrical Construction
ITT	321	Automotive Systems
ITT	322	Automotive Diagnosis and Tuneup
ITT	383	Robotics
ITT	413	Instrumentation
ITT	414	Digital Electronics
ITT	423	Fluid Power
ITT	424	Fluid Power Systems
EET	51	Analog Systems
EET	61	Digital Systems
EET	71	Microcomputer Architecture and Applications

Communication

ITT	332	Architectural Drawing and Design
ITT	333	Descriptive Geometry
ITT	334	Energy Efficient Residential Design
ITT	343	Communication Design
ITT	382	CAD-CAM Technology
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	402	Materials Testing
ITT	440	Related Occupational Experiences/Internship
ITT	452	Metallurgy and Metrology
ITT	490	Special Problems in Technology
Professional Education (22 credits)		
IEA	190	Preprofessional Field Experiences
IEA	290	Contemporary Teaching in Industrial Education
*IEA	380	Curriculum Materials in IA Education
*IEA	381	Methods of Teaching IA Education
EDU	324	Student Teaching/Seminar

*Minimum 2.5 cumulative index required and must be maintained in order to register for IEA 380, IEA 381, and EDU 324 and for graduation from the program.

Bachelor of Science in Industrial Technology

The number of credits (including the University's Core curriculum) required for the degree: 129–30.

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 201 Economics I in addition to another social science course.)

d. Natural Sciences 4

COR course 3

Departmental Requirements

Science/Math 12 credits

Mathematics 3

Statistics 3

Computer Science 3

Physics or Chemistry 3

In addition, students must take 6 credits of electives.

Technical (39 credits)

Required courses

ITT	102	Introduction to Industrial Technology
ITT	103	Materials Properties and Testing
ITT	211	Electronics Technology
ITT	221	Power Systems
ITT	231	Technical Graphics
ITT	241	Graphic Reproduction
ITT	251	Material Processes—Metal
ITT	261	Material Processes—Wood
ITT	281	Computers in Industry and Technology

Technical Electives—12 credit hours

Energy/Power Systems

ITT	311	Communication Electronics
ITT	313	Electrical Construction
ITT	321	Automotive Systems
ITT	322	Automotive Diagnosis and Tuneup
ITT	323	Control Systems

ITT	383	Robotics
ITT	413	Instrumentation
ITT	414	Digital Electronics
ITT	423	Fluid Power
ITT	424	Fluid Power Systems
Technical Communication		
ITT	331	Engineering Design Graphics
ITT	332	Architectural Drawing and Design
ITT	333	Descriptive Geometry
ITT	334	Energy Efficient Residential Design
ITT	342	Photo Offset Lithography
ITT	343	Communication Design
ITT	382	CAD-CAM Technology
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	402	Materials Testing
ITT	452	Metallurgy and Metrology
Optional Electives		
ITT	400	Occupational Experience (Verified)
ITT	440	Related Occupational Experience/Internships
ITT	490	Special Problems in Technology
Professional (38–39 credits)		
Required courses		
ITP	100	Modern Industry
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	Quality Control Fundamentals
ITP	350	Conference Leading
ITP	370	Job/Work Analysis
ITP	380	Principles of Management
ITP	390	Cost Analysis and Control
ABU	111	Principles of Accounting I
ECO	202J	Principles Economics II
Technical Writing (ENG 209 Business and Report Writing or ITP 210 Technical Writing may be taken to satisfy this requirement)		

Option #2: Occupational Experience

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 201 Economics I in addition to another social science course.)

d. Natural Sciences 4

COR course 3

Departmental Requirements

Science/Math 12 credits

Mathematics 3

Statistics 3

Computer Science 3

Physics or Chemistry 3

In addition, students must take 6 credits of electives.

Technical (39 credits)

Technical Assessment (39 credit hours)

ITT 400 Occupational Experience

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 knowledges. 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 (38–39 credits)

Required courses (18 credit hours)

ITP 100 Modern Industry

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 Quality Control Fundamentals

ITP 350 Conference Leading

ITP 370 Job/Work Analysis

ITP 380 Principles of Management

ITP 390 Cost Analysis and Control

ABU 111 Principles of Accounting I

ECO 202] Principles of Economics II

Technical Writing (ENG 209 Business and Report Writing or ITP 210 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: 120.

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 333 Human Growth and Development in addition to two other social science courses.)	
d. Natural Sciences	4
COR course	3
Departmental Requirements	
Science/Math	9 credits
Electives	3

Technical Assessment (45 credits)

ITT	400	Occupational Experience
ITT	440	Related Occupational Experiences/Internships (two options, total credits to be no more than the difference between those granted for ITT 400 and 45 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 knowledges. 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 (27 credit hours)

Required Courses: All courses 3 credits except as noted

IEV	300	Occupational and Trade Analysis
IEV	305	Curriculum Development in Vocational Education
IEV	310	Methods and Materials of Instruction in Vocational Education
IEV	340	Shop Organization and Management
IEV	350	Philosophy of Vocational Education
IEV	411	Measurement and Evaluation (vocational)
ITP	100	Modern Industry
EDU	324	Student Teaching/Clinical Experiences—6 credits

OR

IEV	402	Student Teaching
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Recommended Electives (all 3 credit courses)—May be elected to meet credit requirement for degree, if needed

IEV	312	Teaching Students with Special Needs
IEV	315	Learning and Programmed Instruction
IEV	320	Coordination of Cooperative Education
IEV	330	Principles and Practices of Vocational Guidance
IEV	382	Preparation of Instructional Materials
IEV	420	Trends in Vocational Education
IEV	450	Local Administration and Supervision of Vocational Education
IEV	455	Development of Technical Education
IEV	460	Independent Study in Vocational Education
ITP	350	Conference Leading

Bachelor of Science in Vocational Technology

The number of credits (including the University's Core curriculum) required for the degree: 120.

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

Science/Math 9 credits

Electives 3

Technical Assessment (45 credits)

ITT 400 Occupational Experience

ITT 440 Related Occupational Experiences/Internships (two options, total credits to be no more than the difference between those granted for ITT 400 and 45 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 knowledges. 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)

Required Courses (18 credit hours)

ITP 100 Modern Industry

ITP 350 Conference Leading

ITP 370 Job/Work Trade Analysis

ABU 111 Principles of Accounting I

ABU 240 Principles of Management

ECO 202J Principles of Economics II

Professional Concentration (select one area) (12 credits)

Area 1—General

ABU 112 Principles of Accounting II

ABU 190 Introduction to Computers in Business

ABU 220 Business Finance I

ABU 260 Marketing

Area 2—Personnel Management

ABU 112 Principles of Accounting II

BUS 346 Personnel Management

BUS 348 Industrial Relations

ECO	320	Labor Economics
Area 3—Marketing and Distribution		
BUS	346	Personnel Management
ABU	260	Marketing
BUS	363	Advertising
BUS	367	Managerial Marketing

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 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 Reproduction

A comprehensive study of the common reproduction systems with significance in the graphic arts industries and technology. Design, generation, conversion, reproduction, and finishing of graphic materials utilizing current and emerging industrial techniques. Emphasis on relief, lithographic, and stencil transfer methods. 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. Prerequisite: ITT 102, ITT 103, ITT 231 or permission of the instructor. 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 center around common methods and processes utilized by industry. Primary emphasis will be placed on forming, machining, assembly, handtooling, finishing, and associated measurement and calculation processes. Prerequisites: ITT 102, ITT 103, ITT 231 or permission of the instructor. Cr 3.

ITT 281 Computers In Industry And Technology

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 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 fundamentals laboratory sessions focus on equipment use and measurement of circuit parameters on student assembled receivers. Prerequisite: ITT 211 or permission of instructor. Cr 3.

ITT 313 Electrical Construction

A study of electrical wiring, control circuits and motors, as they relate to industrial and residential applications. Laboratory experiences and field study are used to enhance the student's learning. Prerequisite: ITT 211 or permission of instructor. Cr 3.

ITT 321 Automotive Systems

Automotive Systems is an extension of the basic concepts of power technology as they are applied to the automobile. Automotive technology is examined through analysis, operation, and service of electrical and fuel systems. Experiences include testing and measurement as well as overhaul procedures. Includes theory of design, construction, and operation of basic systems in automotive products. Prerequisite: ITT 221 or permission of instructor. Cr 3.

ITT 322 Automotive Diagnosis and Tuneup

Automotive Diagnosis and Tuneup is designed as an in-depth study of automotive ignition and carburetion systems. Theory, operation, and testing of ignition, carburetion, and pollution control systems is included. Opportunities for independent research and problem solving are provided. Prerequisite: ITT 321 or permission of instructor. 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 of instructor. 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 of instructor. 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 Photo Offset Lithography

A study of communication industries utilizing photographic offset lithography in the preparation and production of graphic materials. Emphasis on design, copy preparation, photographic conversion, stripping, platemaking, and press operation. Photographic techniques relating to line and halftone conversion, copy preparation and cost analysis are also included. Lecture and lab. Cr 3.

ITT 343 Conununications Design

An introduction to the principles of layout and design in preparing camera copy for graphic reproduction. Emphasis on design elements and fundamentals, manuscript, and illustration preparation, graphic and photographic techniques, and production specifications. Prerequisite: ITT 241 or permission of instructor. 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 of instructor. 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 351 or permission of instructor. Cr 3.

ITT 361 Production Manufacturing in Wood

Production and wood manufacturing problems including production planning, mass production, jigs, fixtures, special machine operations, and advanced finishing techniques. General maintenance procedures on production equipment. Group and individual research assignments and related technical problems. Prerequisite: ITT 261 or permission of instructor. Cr 3.

ITT 362 Residential Construction

A study of the residential construction industries including construction principles; 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 of instructor. 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 of instructor. Cr 3.

ITT 371 Plastics Technology

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 applications, mold design and construction. Cr 3.

ITT 382 CAD/CAM 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. 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 Experience

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 402 Materials Testing

Industrial techniques involved in the analysis of the physical properties of materials and their utilization in the manufacturing and construction industries. Emphasis on research and experimentation. Individual and team activities. Prerequisite: ITT 103, ITT 361 or 351 or permission of instructor. Cr 3.

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 of instructor. 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 of instructor. 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 424 Fluid Power Systems

Application of fluid power and fluidic systems to manufacturing and construction industries. Prerequisite: ITT 423 or permission of instructor. 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 331 or permission of instructor. 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 of instructor. 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 adviser.

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 of instructor. 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 251 or permission of instructor. 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.

EET 51 Analog Systems

Linear and non-linear operation of solid-state electronic devices with emphasis on the operation and applications of the operational amplifier. Prerequisite: course in basic electronics. Cr 4.

EET 61 Digital Systems

An introduction to the design of digital systems including combinatorial logic, sequential machines and the use of MSI and LSI circuits. No prerequisites, however, designed for students with a basic electrical background. Classroom and lab experiences. Cr 4.

EET 71 Microcomputer Architecture and Applications

The microcomputer and its component parts including microprocessors, registers, memory and I/O. Programming and applying the microcomputer in engineering systems. Cr 4.

IEA 190 Preprofessional Field Experiences

Provides an exploratory opportunity in public/private school or educative agencies to assist students in becoming acquainted with the teaching profession and to examine various options in the field of industrial arts. Cr 2.

IEA 290 Contemporary Teaching in Industrial Education

This course is designed to develop verbal communication skills in the field of industrial arts. Basic understanding of related terminology in industrial education will be emphasized.

Students will become knowledgeable of contemporary industrial arts programs at the elementary, junior high, and senior high school levels. Prerequisites: IEA 190. Cr 2.

IEA 380 Curriculum Materials in Industrial Arts Education

Development of curriculum materials for contemporary programs in industrial arts. Emphasis on unit preparation, performance-based objectives, and task analysis essential for identifying content and an effective instructional delivery system. Individualized and class instruction. First of a two-course sequence prior to student teaching. Prerequisites: 100/200 level technical core, ITP 300, IEA 290, 2.5 GPA, and recommendation of faculty. Cr 3.

IEA 381 Methods of Teaching Industrial Arts Education

Utilization of prepared plans for micro- and participation-teaching. Instructional media preparation and utilization. Audio and video tape presentations and critiques. Introduction to criterion-referenced evaluation techniques. Safety principles and classroom control stressed. Basic organization and administration procedures for implementing a modern program of industrial arts. Orientation to student teaching. Prerequisites: 100/200 Level Technical core, ITP 290, 2.5 GPA, and recommendation of faculty. Cr 3.

ITP 100 Modern Industry

Evolution and contemporary structure of American industry and its impact upon the social, economic, and cultural environment. Major areas and functions of industry explored include: personnel administration, research and development, production, finance, marketing, and service. Industrial visitations and reports. 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

Theory of industrial safety with emphasis on fundamental concepts in the industrial environment. Emphasis will be placed on the psychological, sociological, and physiological aspects of industrial safety. Consideration will be given to OSHA and its impact on the work environment. Cr 3.

ITP 330 Production Control

Production control as a system, types of process organization, planning and scheduling, inventory control, forecasting production control and production planning. Some of the techniques developed in Operational Research will be used to solve problems in Production Control. Cr 3.

ITP 340 Quality Control Fundamentals

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 Principles of Industrial 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.

IEV 300 Occupational and Trade Analysis

Identification of occupational or trade fields, units, operations, and items of related information. Cr 3.

IEV 305 Curriculum Development in Vocational Education

This course is concerned with developing specific course content from an occupational analysis. The identification of educational needs and objectives precedes the selection and organization of relevant matter. Prerequisite: IEV 300. Cr 3.

IEV 310 Methods and Materials of Instruction in Vocational Education

This course treats the general and specific materials and methods of teaching vocational courses. Deals with both the theoretical and practical aspects. Prerequisites: IEV 300 and IEV 305. Cr 3.

IEV 312 Teaching Students With Special Needs

A course designed for vocational educators who need to learn how to serve handicapped, disadvantaged and gifted youth. It is structured to aid vocational teachers in working with special education personnel and to provide skills needed in planning instruction for students with special needs. Cr 3.

IEV 315 Learning and Programmed Instruction

The first application of the laboratory and scientific study of the learning process, including the principles of learning which are derived from experimental study and which have provided a foundation for advances in the techniques of learning. Cr 3.

IEV 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.

IEV 330 Principles and Practices of Vocational Guidance

Discussion and study with the intent to develop a better understanding of principles and objectives of vocational guidance. Cr 3.

IEV 331 Practicum Vocational Guidance

Field experiences in identification of content and relevant information for vocational counseling. Individual and group activity, visitations, tours, and career counseling techniques. Cr 3.

IEV 340 Shop Organization and Management

Basic principles of planning, organizing, and managing an industrial or technical shop or laboratory. Selection and arrangement of equipment including specification writing. Control of personnel for efficient shop management. Prerequisite: IEV 310. Cr 3.

IEV 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.

IEV 382 Preparation of Instructional Materials

A lecture-laboratory series which involves students in the creation of instructional materials. Techniques include the dry mounting of flat pictorial materials, cloth backing of pictorial materials, professional-quality lettering, rudimentary photography and processing (including use of the darkroom), and the production by several techniques of transparent projectuals. Cr 3.

IEV 402 Student Teaching

Experienced instructors (three years teaching experience) seeking credit. Observation of performance and documentation of successful practice required. Cr 6.

IEV 411 Measurement and Evaluation in Vocational Education

The construction, selection, and use of achievement and performance tests in industrial-technical education. Skill in writing test items is developed. Elementary statistics for the industrial-technical instructor, including grading, are stressed. Prerequisites: IEV 300 and IEV 310. Cr 3.

IEV 420 Trends in Vocational Education

Identification, analysis, and discussion of major problems and trends in vocational education. Cr 3.

IEV 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.

IEV 455 Development of Technical Education Programs

Planning and development of technical education programs including the determination of needs and organization of programs for secondary and post-secondary schools. Cr 3.

IEV 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.

School of Nursing

Dean: Nancy P. Greenleaf; *Associate Dean:* Kathleen I. MacPherson

Faculty in Nursing

Professor: MacPherson; *Associate Professors:* Burson, Czupryna, Dorbacker, Drew, Fournier, Greenleaf, Healy, Jensen, Normandeau, Paltrow, Peake-Godin, Rodgers, Shoobs, Thompson, Tiffany, Tryon, Tukey; *Assistant Professors:* Elliot, Johnson, Kreamer, Thomas-Lawson, Nealand, Perry, Skonar, Stone, Young.

Administrative Manager: Susan Taylor

Information Services Associate: Brenda Webster

Director, Learning Resource Laboratory: Mary Ann Hodsdon

Adjunct Faculty: Mary Ann Rost

Faculty in Recreation and Leisure Studies:

Chair, the Department of Recreation and Leisure Studies: James V. Sullivan

Professor: Sullivan; *Associate Professors:* Meyer, McCullough; *Assistant Professors:* Martin, Willard

The University of Southern Maine School of Nursing offers programs in nursing and leisure studies. These include a graduate program which leads to a master of science degree with a major in nursing, a baccalaureate program which leads to a bachelor of science degree with a major in nursing, and a recreation and leisure studies program which offers both associate of science and bachelor of science degrees in therapeutic recreation. The recreation and leisure studies programs are described more fully in the next section of this catalog.

The aims of the School of Nursing are consistent with the mission of the University of Southern Maine: to provide nursing and leisure studies education within a state institution of higher learning; to recognize the centrality of the liberal arts in the education of professional practitioners; to focus on community health needs; to recognize research as a means of increasing knowledge and improving practice; and to acknowledge an educational responsibility to respond to the learning needs of a diverse student population.

Department of Undergraduate Nursing

Nursing is an art and science committed to holistic health care. Nurses' roles focus on the prevention of illness and the promotion, maintenance, and restoration of health. Nursing creates a shared space between a client and nurse where intimacy may be experienced, where caring and nurturing may be given and received, where advocacy may be expressed, and where health may be restored. Nursing knowledge and technology are expanding rapidly, changing nursing's potential to respond to societal needs.

The baccalaureate program in nursing prepares a beginning professional nurse for practice in a variety of settings, and provides a foundation for advanced study in nursing.

The master's program in nursing prepares students for nursing roles that require advanced nursing knowledge, practice skills, and knowledge of the research process; provides a foundation for leadership and advanced practice in nursing; and provides a foundation for doctoral study. Please consult the USM graduate catalog for details.

The School of Nursing has developed a special component of its baccalaureate program for RNs. This RN Studies Track allows the possibility of completing a B.S. in nursing in as little as a year after fulfilling the prerequisites to the nursing major. Please refer to RN Studies Track in this section of the catalog for further information.

Baccalaureate Program in Nursing

The School of Nursing offers a baccalaureate nursing program with an upper-division major for professional study. There is one three-credit nursing course that must be taken prior to the junior year. Each nursing student must complete a minimum of 121-126 credits which include nursing, core competencies, general education, liberal arts, sciences, and other supporting courses. Upon successful completion of the program the student is awarded a bachelor of science degree with a major in nursing, and is eligible to take the State Board Examination for RN licensure. The School of Nursing is approved by the Maine State Board of Nursing and accredited by the National League for Nursing.

Admission Policy and Procedure

Please consult the Admissions section of this catalog for information about admission to the University of Southern Maine. All students enrolled in the nursing programs will be advised by nursing faculty.

RN Applicants at USM

Admission decisions for RNs are made as applications are received. Other policies are described in this catalog in the section entitled RN Studies. It is important that the applicant make contact with the RN Studies counselor at the School of Nursing.

For all categories of applicants, enrollment in nursing clinical courses is dependent on successful completion of designated prerequisite requirements before the beginning of the nursing major.

Prerequisites for the Nursing Major

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. D grades or below are not acceptable in prerequisite areas except in one general elective course.

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

*General Biology and lab	4.5 credits
*Human Anatomy and Physiology and Lab	4.5 credits
*Inorganic Chemistry and Lab	4 credits
*Organic or Bio Chemistry	3 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
	<hr/> 9 credits

Nursing

Introduction to Professional Nursing	3 credits
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Other

General Electives (can include nursing electives)

*Must be completed before entering 300-level nursing courses.

Note: For graduation with a major in nursing, no more than 3 credits of pass/fail in general elective credit will be accepted.

Nursing Major

The nursing major consists of nursing courses, a pathophysiology course, and elective courses. Clinical nursing courses are organized in a manner that facilitates the integration of nursing and other disciplines. These 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.

Nursing Courses

BIO	345	Pathophysiology	3 credits
NUR	309	Health Assessment	3 credits
NUR	300	Nursing Process I	2 credits
NUR	350	Nursing I lab	2 credits
NUR	302	Pharmacology	3 credits
NUR	352	Concepts in Mental Health	3 credits
NUR	305	Nursing Process II	3 credits
NUR	355	Nursing II lab	4 credits
NUR	400	Nursing Process III	3 credits
NUR	450	Nursing III lab	4 credits
NUR	401	Health-Related Research	3 credits
NUR	456	Concepts in Community Health	3 credits
NUR	405	Nursing Process IV	3 credits
NUR	455	Nursing IV lab	4 credits
NUR	407	Leadership in Health Care	<u>4 credits</u>
			47 credits

Non-academic Requirements for the Nursing Major

Nursing majors are required to have the Medical History and Physical Examination Form completed and on file at the University of Southern Maine Student Health Services before enrolling in clinical nursing courses. Because health care workers are at higher risk for certain illnesses, it is strongly recommended that all students carry health insurance and be immunized against hepatitis B. The excellent health plan available to USM students is described in the Student Services section of this catalog.

Nursing majors must purchase uniforms before entry into the clinical nursing courses. In addition, a \$15.00 fee per semester (junior and senior years) is required as a clinical fee. Cost for books is approximately \$250.00 per semester. Clinical learning experiences take place in a variety of settings and geographic locations. It is the student's responsibility to provide his/her own transportation for junior and senior clinical experiences. Professional liability insurance and health insurance are strongly recommended for students in the School of Nursing. Certification in cardiopulmonary resuscitation (CPR) is required each year prior to entry into clinical experiences.

RN Studies Option for Registered Nurses

The University of Southern Maine recognizes the need and desirability for registered nurses to attain a baccalaureate degree within the state. The School of Nursing faculty believes in a flexible approach to attaining this goal. We realize that RNs returning to school face life complexities such as changes in established roles, financial strains, and family and work responsibilities. Every effort is made to promote dialogue to aid in the integration of the personal and educational changes that will occur in moving toward the B.S. degree.

In response to the need for baccalaureate programs for RNs, the School of Nursing has developed an RN Studies Option. The RN Studies Option consists of courses in new areas of content for the RN and assessments of prior learning in areas of previously attained knowledge and skill. A total of sixty (60) credits might be attained through the assessment of prior learn-

ing. The RN Studies Option seeks to meet the needs of the adult learner through flexible class scheduling, extensive credits-by-examination, and full- or part-time study.

Credits-by-examination may be attained in both nursing and non-nursing courses. Non-nursing courses open to credit-by-exam include English composition, general biology, general chemistry, general psychology, general sociology, human anatomy and physiology, human growth and development, pathophysiology, and human nutrition. Courses within the nursing major for the RN include:

NUR	304	Transition Course	5 credits
*NUR	309	Health Assessment	3 credits
*NUR	302	Pharmacology	3 credits
*NUR	312	Clinical Assessment Test	1 credit
*NUR	314	Assessment Test of Basic Nursing Knowledge	18 credits
*NUR	352	Concepts in Mental Health	3 credits
NUR	401	Health Related Research	3 credits
NUR	456	Concepts in Community Health	3 credits
NUR	455	Nursing IV Lab	4 credits
NUR	407	Leadership in Health Care	4 credits

*Courses available for credit-by-examination

The RN applicant to the School of Nursing must: a) meet the general admission requirements of the University; b) achieve a minimum 2.25 grade point average in designated prerequisite courses in order to progress to the 300-level nursing major courses; and c) be a registered nurse. For further information regarding the RN Studies Option, contact the University of Southern Maine School of Nursing.

Retention/Progression

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.

A student who receives a grade of D or F in NUR 309, Health Assessment, will be allowed to repeat the course once alone or concurrently with NUR 300 and NUR 350, Nursing Process I and Nursing I laboratory, with the permission of the instructor. The course must be passed with a grade of C or better.

Nursing Process and Laboratory courses must be taken concurrently the first time a student is enrolled in each course. Exceptions may be made with the consent of the course faculty. (NUR 300 with NUR 350, NUR 305 with NUR 355, NUR 400 with NUR 450, and NUR 405 with NUR 455).

A grade of D or F in a Nursing Process or Laboratory course will stop progression within the School of Nursing until corrected. Only the course in which the D or F is received, Nursing Process or Laboratory, 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 process or laboratory 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 Process and Laboratory 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 or suspended from the University according to its policies or required to change major.

The academic record of a student who receives multiple grades of F in nursing and/or support courses or an F in a nursing lab course (NUR 350, 355, 450, 455) will be reviewed by the subcommittee for academic advancement. Matters of personal concern to the student will also be considered. The subcommittee will recommend to the dean a decision regarding progression or dismissal.

Grading for all courses will follow the established School of Nursing grading policy.

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 120-126 credit hours with a grade point average of at least 2.25.

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 three areas of concentration: health promotion, health/fitness, and nutrition. 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. Complete nine credits of health studies courses drawn from the three areas of concentration. The nine credits may consist of three courses from one concentration or one course from each of the three concentrations.
3. Complete a three-credit elective course selected from any concentration.

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.

The nutrition concentration includes: NFS 252, NFS 300, NUR 320, NUR 540, NFS 541.

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.

Required Nursing Courses

BIO 345 Pathophysiology

See Biology section of this catalog for course description.

NFS 252 Human Nutrition

A course designed to show how the given nutrients serve to meet the metabolic proc-

esses required for life. Prerequisites: Anatomy and Physiology; General and Organic Chemistry; 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 communication and caregiver with a diverse, multi-cultural population in a variety of settings. Open to any sophomore standing University student. Cr 3.

NUR 300 Nursing Process I

This course examines the theories and philosophies of health promotion activities that enhance the health of individuals throughout the lifespan. The students study the wellness needs of culturally diverse clients at different developmental stages from a variety of selected settings. The nursing process provides a research based foundation for introducing the professional nursing roles of communicator and teacher. Prerequisites: NUR 200, NUR 309. Concurrent: NUR 350. Cr 2.

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. Prerequisite: Human Anatomy and Physiology. Junior standing students in nursing accepted. Permission of instructor for non-nursing majors. Cr 3.

NUR 305 Nursing Process II

In this course, theory and research findings are presented utilizing the nursing process as a method for health promotion, maintenance, restoration, and adaptation of individuals and families with short-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. The nursing roles of advocate and caregiver are emphasized. The concept of family and its significance as a potential support system for individual clients is explored. Prerequisites: NUR 300 and NUR 350. Concurrent: NUR352, BIO 345, and NUR 355. Cr 3.

NUR 309 Total Health Assessment

This course introduces and develops the knowledge and skills necessary to conduct an in-depth bio-psycho-social-cultural health assessment of well individuals across the life span. Emphasis is placed on data collection through development of communication, interviewing, history-taking and physical examination skills, and data synthesis with

identification of nursing diagnoses. Open to RN or junior standing students in the School of Nursing. Permission of the instructor required for non-nursing majors. Cr 3.

NUR 350 Nursing I Laboratory

Nursing I Laboratory applies theories and philosophies of health promotion activities to culturally diverse individuals throughout the life span in day care, school, hospital and community settings. Students apply the nursing process to well individuals and focus on the roles of communicator and teacher. Must be enrolled in NUR 300 concurrently. Cr 2.

NUR 352 Concepts in Mental Health

This course introduces concepts and principles basic to mental health nursing. Focus will be on 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. Open to junior standing students in the School of Nursing. Prerequisites: General Psychology and Growth and Development. Cr 3.

NUR 355 Nursing II Laboratory

Nursing II Lab provides an opportunity for students to apply the theoretical concepts of health promotion, maintenance and restoration with individuals throughout the life span experiencing short-term alterations in health in acute care settings by using the nursing process framework. The concepts of family theory are applied through an assessment of a healthy family and the role of nurse as teacher is expanded to include working within the social context of the family. The concepts of client advocacy and caregiving will be incorporated into planning and implementing client care. Students must be enrolled in NUR 305 concurrently. Cr 4.

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 and NUR 355. 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; NUR 305 and NUR 355; or permission of instructor. Cr 3.

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 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. Cr 4.

NUR 450 Nursing III Laboratory

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 455 Nursing IV Laboratory

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. 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.

Nursing Electives

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.

NFS 240 Nutritional Concerns of American Women

The nutritional needs of women differ from those of men throughout the life cycle. This course will examine selected topics pertinent to the special nutritional concerns of women, including such topics as nutrition and premenstrual syndrome, osteoporosis, nutrition

and the pill, women in sports, pregnancy, and lactation. Cr 3.

NFS 300 Child Nutrition Seminar

An interdisciplinary approach to nutritional needs of children. Films, speakers, text, and journal readings serve as basis for class discussion. Sample topics include infant nutrition, nursery school meals, snacks, educational nutrition games, school lunch as a learning tool, and vegetarian diets. Opportunity for students to focus on an area of special interest. One clinical feature is the participation in a head start nursery school lunch hour. Cr 3.

NUR 306 Environmental Health Nursing

This course will explore major problems and issues affecting the environment with respect to human health. Emphasis will be on community health approaches to environmental protection, political influences and role. Cr 3.

NUR 310 Health Care in the Camp Setting

An overview of nursing in the organized summer camp is presented. Nursing process is applied to individuals of all ages and the camp as a community. Prevention activities, management of common health problems, and crisis intervention is explored. In examining the independent role of the camp nurse, issues such as state health regulations, nurse practice

acts, accreditation standards, general legal concerns, and collaboration with camp staff and other health care providers are addressed. Cr 3.

NUR 320 Eating Behaviors

A course designed to examine eating behaviors in the context of genetic and environmental influences. Normal motivation for eating and drinking as well as abnormal eating and drinking behaviors are considered. Cr 3.

NUR 321 Perspectives in Gerontology

A broad-based perspective on current theories and issues related to aging in this society. The older person is viewed within a holistic realm including the physical, psychological, and sociological considerations which are relevant. Emphasis will be placed on dispelling the myths of aging while enhancing the growth potential of aging persons. Cr 3.

NUR 324 Cultural Diversity in Health

A study of factors that influence provider-client relationships in a multicultural society. An examination of the health care system, the social, political, and economic environment of our society, and the health care needs and practices of culturally diverse groups. Assessment tools and transcultural communications models will be presented and discussed. Cr 3.

NUR 395 Nursing Independent Study

Individualized study in an area of nursing with the permission of the instructor. Cr 1-3.

NUR 404 Issues in Adolescent Health Care

The purpose of this course is to examine the bio-psycho-social-cultural growth and development of adolescents and with that basis, examine issues in health care that are specific to that age group. Cr 3.

NUR 408 Alternatives in Childbirth

An exploration of current trends in birthing with emphasis on factors which lead to greatest satisfaction for the birthing family while maintaining health of those involved. Cr 3.

NUR 409 Current Concepts in Nutrition

Latest concepts and trends in nutritional management of various health problems. Exploration of current nutrition-related issues. Opportunity is provided for students to focus on areas of interest. Cr 3.

NUR 495 Nursing Independent Study

Individualized study in an area of nursing with the permission of the instructor. Cr 1-3.

NUR 503 Women's Health Movement

This course will address the historical development of the women's health movement as well as its present structure and politics. The objectives of this course are to familiarize students with the growth and development of a vigorous, contemporary social movement and to stimulate interest in students regarding the movement, both theoretically and experientially. Cr 3.

NUR 510 Historical Perspectives in the Nursing Profession

Surveys historic events in nursing and relates selected aspects to current concerns of the profession. Cr 3.

NUR 520 Ethical Issues in Health Care

Analysis of selected contemporary ethical issues confronting health care professionals. Examination of major ethical theories and principles and related decision-making models. Cr 3.

NUR 530 Biology of Aging

This course is intended to serve as a foundation in aging science for students in any discipline. It approaches two questions: (1) Why do we age? (2) How do we age? Analyzes theories of the aging process, research in longevity, and statistics about the aging characteristics of our society. Considers the changes of aging, sorting out physiology from pathophysiology, and myth from fact. Students will attempt to develop an informed, working, and creative model for understanding the aging process and examine observations of their own aging and attitudes about it. Cr 3.

NUR 540 Nutritional Needs of the Older Adult

A course addressing nutritional needs of the elderly and how these needs can be met; the effects of aging, economics, and social factors on food intake; an overview of disease and disability conditions which respond to diet modifications. Cr 3.

NUR 550 Advanced Applied Pathophysiology

This course will study the mechanisms and manifestations of statistically common diseases. Lectures introduce theoretical concepts of pathophysiology using systems theory. Periodic clinical pathological conferences (CPCs) enable the student to do applied pathophysiology in a seminar setting. This is a fast-paced, in-depth review course. Strong student participation is expected in class. Cr 3.

RN Studies Option Courses

NUR 304 Transition to Professional Nursing

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 pro-

motion, 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 develop 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 or junior standing University students. Prerequisite: NUR 200 or RN license. Cr 5.

NUR 309 Total Health Assessment

This course introduces and develops the knowledge and skills necessary to conduct an in-depth bio-psycho-social-cultural health assessment of well individuals across the life span. Emphasis is placed on data collection through development of communication, interviewing, history-taking and physical examination skills, and data synthesis with identification of nursing diagnoses. Open to RN or junior standing students in the School of Nursing. Permission of the instructor required for non-nursing majors. Cr 3.

NUR 312 Clinical Assessment Test

The purpose of this course is to validate the prior learning and clinical functioning of Registered Nurse students who are seeking a

baccalaureate degree in nursing. This clinical evaluation provides the student with an opportunity to demonstrate the ability to apply the nursing process in the care of individual clients—assessing, planning, implementing, and evaluating care in a safe, appropriate, organized, and accountable manner. Prerequisites: NUR 304 and NUR 309 or permission of faculty. RN licensure is required. Cr 1.

NUR 314 Assessment Test of Basic Nursing Knowledge

The purpose of this examination is to validate the prior learning of Registered Nurse students in the areas of fundamental nursing care. The written assessment provides the student with an opportunity to demonstrate the application of the nursing process in the care of individuals, families, and groups in health and illness. Prerequisites: NUR 304 and NUR 309 or permission of faculty. RN license is required. Cr 18.

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 61 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 123 credit hours. Upon completion of the degree requirements, the students 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 for certification by the National Council for Therapeutic Recreation Certification.

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.

Associate Degree Program in Therapeutic Recreation

The minimum number of credits required for the degree: 61.

The two-year program in therapeutic recreation consists of the following courses leading to the associate of science degree:

A. General Foundation Courses				Credits
Required				
ENG	100C	College Writing		3
BIO	019	Biological Basis for Human Activity		3
THE	170F	Public Speaking		3
OR				
COM	171	Interpersonal Communication		3
Electives (one from each area)				
Humanities				3
Social Sciences				3
General Elective				3
B. Major Requirements				
REC	110	Introduction to Recreation and Leisure Services		3
REC	113	Preprofessional Field Experience		2

REC	121	Introduction to Therapeutic Recreation Services	3
REC	125	Activity Analysis and Adaptation	3
REC	211	Programming Leadership in Recreation	3
REC	216	Advanced First Aid and Emergency Care	3
REC	232	Methods in Therapeutic Recreation Program Design	3
REC	260	Introduction to Special Populations	3
REC	294	Pre-internship	2
REC	295	Internship	9
Two courses from the following:			
REC	215	Social Recreation	3
REC	231	Arts and Crafts in Therapeutic Recreation	3
REC	233	Environmental Recreation	3
REC	278	Leisure and Older Adults	3
One elective course in recreation			3

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 3.5 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 a letter which explains their reasons for wanting to transfer. Acceptance into the program is dependent on the student's academic performance, letter of application, and space availability.

Baccalaureate Degree Program in Therapeutic Recreation

The minimum number of credits required for the degree: 123.

In satisfying Core curriculum requirements, students are urged to take MUS 110F Fundamentals of Music for the fine arts performance-centered arts section. PSY 101J Introduction to Psychology and SWO 101J Introduction to Social Welfare are recommended for fulfilling the social sciences requirement. BIO 105K and 106K Biological Principles 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 courses within the program			Credits
REC	110	Introduction to Recreation and Leisure	3
REC	113	Preprofessional Field Experience	2
REC	121	Introduction to Therapeutic Recreation Service	3
REC	125	Activity Analysis and Adaptation	3
REC	216	Advanced First Aid and Emergency Care	3
REC	232	Methods in Therapeutic Recreation Program Design	3
REC	241	Leadership and Supervision in Recreation	3
REC	278	Leisure and Older Adults	3
REC	290	Organization and Administration of Recreation	3
REC	314	Leisure Awareness Counseling	3
REC	371	Therapeutic Recreation for Special Populations I	3
REC	381	Therapeutic Recreation for Special Populations II	3
REC	480	Management and Supervision in Therapeutic Recreation	3

REC	490	Senior Seminar in Therapeutic Recreation	3
REC	494	Pre-internship	2
REC	495	Internship	9

Required courses outside of the program

THE	170F	Public Speaking	3
BIO	211	Human Anatomy and Physiology	3
BIO	212	Practical Human Anatomy and Physiology	1.5
SWO	266	Self Concept and the Handicapped	3
HRD	333J	Human Growth and Development	3
PSY	333	Psychopathology	3
A computer science course			3

Recreation Elective Courses (Select 14 credits)

Majors should select a well-balanced array of recreation electives. Their selections must reflect the following requirements:

One 3 credit physical fitness course (select from REC 219, REC 277, REC 279, REC 280, REC 282, or REC 283)

Two 1 credit activity courses (select from REC 100, REC 101, REC 102, REC 103, REC 104, REC 105, REC 106, REC 107, REC 108, REC 109, or REC 221) or one 2 credit activity course, e.g., REC 217

Three 3 credit recreation elective courses (select from REC 215, REC 226, REC 231, REC 233, REC 250, REC 281, REC 343, or REC 398)

General Elective Courses (at least 6 credits). The number of general electives will depend upon the number of credits remaining after the student has fulfilled the Core curriculum basic competence requirements. General electives can be any course that does not have REC prefix. Some highly recommended courses include:

PHE	310	Experiential Learning in Outdoor Education	3
PHE	325	Workshop in Experiential Education	3
HRD	331	Group Dynamics	3
COR	108	Poverty in America	3
COR	110	Old and in the Way?	3
PSY	335	Deviations of Childhood	3
THE	122F	Contemporary Dance I	3
SWO	288	Substance Use and Abuse	3

REC 100 Recreation and Leisure Activities

Ballroom Dance; Bicycle Touring; Golf; Karate. Two-hour laboratory. 1 credit per activity.

101 Tennis; 102 Volleyball; 103 Wallyball; 104 Racquetball; 105 Lifeline-Walk/Jog; 106 Lifeline-Aerobic Exercise; 107 Lifeline-Aerobic Dance; 108 Lifeline-Aquatics; 109 Lifeline-Weight Training. 1 credit per activity. These courses provide the student with the opportunity to learn and participate in one of the above activities. With reference to the Lifeline fitness activity courses, a student must attend a minimum of 25 class sessions out of a ten-week session.

REC 110 Introduction to Recreation and Leisure Services

Concepts of leisure and recreation and play are covered from historical to contemporary societies. Leisure awareness and all the intricacies of the leisure/recreation experience and how these experiences relate to concepts of time and work are included.

Cr 3.

REC 113 Pre-Professional Field Experience

This course will provide students with the opportunity to observe, analyze, and evaluate therapeutic recreation programs in various settings. Students will visit the Center for the Blind, the Baxter School for the Deaf, the Cerebral Palsy Center, two nursing homes, Maine Medical Center's Department of Rehabilitation, and the Woodford's West Educational Center. Written reports on each one of these visitations will be required. In addition, students will be expected to read four articles relating to therapeutic recreation and write summary reports on each of the articles read. Prerequisite: REC 110.

Cr 2.

REC 121 Introduction to Therapeutic Recreation Services

This course provides an overview of therapeutic recreation including historical foundations, philosophy and models of service, the relationships of leisure to health, professional functions, employment opportunities, professional organizations and literature, the psychology of disability, and community

recreation integration. Concentrated study of the elements of therapeutic recreation service stressing rehabilitation, leisure education, and recreation in community and treatment settings. Cr 3.

REC 125 Activity 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. Specially developed recreational devices that can increase the leisure opportunities of persons with disabilities will also be examined. Cr 3.

REC 211 Programming Leadership in Recreation

This course provides the student with the principles of program planning. In particular, the course addresses the process of identifying the problems that exist in recreation, setting goals and objectives, selecting and implementing the program design, and developing an evaluation procedure. In addition, the student learns many of the detailed technical skills that are essential to achieve positive results in programming. Prerequisite: REC 110. Cr 3.

REC 215 Social Recreation

Practice in leadership and participation in New Games, mixers and ice breakers; board or card games; musical activities, square and folk dance, dramatic activities; tag games and games with balls, special events. 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 emergencies, artificial respiration, wounds, poisoning, water accidents, drugs, burns, emergency childbirth, emergency rescue and transfer, and other topics. Successful completion of the course requirements will lead to advanced Red Cross first aid certification. Cr 3.

REC 217 Small Boat Handling and Seamanship

The objective of this course is to inform the student on all phases of boating. Information of purchasing, annual and continual maintenance, equipment, safety, rules, piloting, and navigation. All of this should insure the student's full enjoyment of this popular recreational pursuit. Two hours lecture. Cr 2.

REC 219 Personal Fitness

This course is intended to help the student understand the basics of health/physical fitness and the importance of it in relation to total lifestyle. In addition to lecture/discussion, all students will go through a fitness evaluation and be expected to attend exercise lab three times per week. Offered both semesters, 90-minute lecture, three hours lab. Cr 3.

REC 221 Audio Visual Aids In Recreation

This course will provide students with basic instruction necessary for the operation of equipment and the development of basic media used in recreation settings. Cr 1.

REC 226 Leadership in Recreation/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 for Special Populations

This course will explore and assist students in learning how to make various crafts in a laboratory setting. Examples of crafts that students will be taught to make are hooked rugs, macrame, and other appropriate projects. Prerequisite for associate degree candidates: REC 120. Cr 3.

REC 232 Methods in Therapeutic Recreation Program Design

Emphasis is on the development of specific and individualized recreation programs. Topics include the program design process, unit planning, assessment, documentation, and evaluation. Prerequisites: REC 120, REC 125. Cr 3.

REC 233 Environmental Recreation

An overview of basic environmental and outdoor education concepts and teaching strategies. Examination of resource-based recreation activities, outdoor survival skills, and environmental issues as well as participation in selected outdoor recreation activities such as map and compass games, nature photography, lashing, sand painting, bird watching, and fly and spin casting. Cr 3.

REC 241 Leadership and Supervision in Recreation

This course provides students with a basic knowledge of the theories, supervisory skills, techniques, and specific communication skills for effective leadership and supervision in recreation. 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 to discover the joys of participating in water activities. Cr 3.

REC 260 Introduction to Special Populations

This course provides an overview of disabilities served by therapeutic recreation professionals including developmental disabilities, physical disabilities, psychiatric disabilities, and problems associated with aging. Emphasis will be

on etiology, treatment approaches, prognosis, educational concerns, and a basic understanding of the disabilities' impact on the person's leisure lifestyle. 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 278 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 a variety of settings including municipalities, senior centers, adult day care, and nursing homes. Prerequisite: REC 232 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

The science of human motion. Human muscular anatomy and applications of concepts of muscle physiology and bio-mechanics of movement. Cr 3.

REC 282 Health and Fitness for Children and Youth

This course is designed to help students understand the changing nutritional and exercise needs of children and youth as they pass through various developmental stages from infancy through early adolescence. Along with fitness development, students will acquire a basic knowledge of nutrition, exercise physiology, and related techniques. Also, some first aid techniques will be included. Cr 3.

REC 283 Exercise Laboratory Evaluation and Techniques

This course is designed to provide hands-on learning relative to the field of physical fitness screening. Students will spend a majority of class time in a laboratory setting. The course will also cover theoretical information relative to behavior modification, exercise prescription, testing techniques, and other pertinent materials. Prerequisite: REC 219 or REC 280 or permission of the instructor. Cr 3.

REC 290 Organization and Administration of Recreation

This course acquaints students with the need for, and nature of, recreational programs, with special consideration given to skills and techniques necessary to organize and administer recreation programs. Prerequisite: REC 110. Cr 3.

REC 294 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, and risk management will be required. This course must be taken immediately prior to Internship. Prerequisite: Recreation core courses and instructor's permission. Cr 2.

REC 295 Internship

Students are required to work a minimum of 350 hours within a 10-week period at the beginning of the internship semester. This experience will be in an approved agency that provides recreation or therapeutic recreation services. During this period the students will apply the knowledge, methods, and leadership techniques that have been learned in academic courses. Students will be directly supervised by qualified agency personnel and indirectly supervised by a faculty member. Following this 10-week experience there will be a 4-week course in the classroom to complete the Internship. This will allow students to synthesize the internship experience and gain select knowledge prior to entering the profession. Prerequisite: Recreation core courses and instructor's permission. Cr 9.

REC 314 Leisure Awareness Counseling

The intent of this course is for students to study and learn how to help people plan for and find enjoyment in leisure. Theories and techniques of counseling will be included. Students will also study problems which individuals and groups encounter in their search for recreation and leisure experiences which have intrinsic value and give meaning to their lives. 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 371 Therapeutic Recreation for Special Populations I

This course explores the bio-psycho-social aspects of persons with physical disabilities as well as the leisure lifestyle of persons socially, culturally, and economically disadvantaged. Students will participate in a variety of lectures, discussions, and experiential assignments designed to enhance clinical knowledge and to develop specific programming skills, e.g., wheelchair handling skills. Special emphasis is given to planning, implementing, and evaluating recreational activities. Prerequisite: REC 232. Cr 3.

REC 381 Therapeutic Recreation for Special Populations II

This course will explore the role of therapeutic recreation as a treatment modality for persons with developmental disabilities and psychiatric disorders. The concept of mental health and its relationship to leisure will be examined and specific treatment strategies, procedures, and programs will be explored. Prerequisite: REC 232, PSY 333. Cr 3.

REC 398 Independent Study in Recreation Leisure

This course is intended to provide students with an opportunity to pursue a project independently, to chart a course and explore an area of interest bearing upon it based on previous course experiences. A course outline must be prepared by the student and a final written paper is required. Prerequisite: permission of the instructor. 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 discuss their internship experiences and will apply the information learned through internships to course assignments and discussions. Prerequisite: REC 495. Cr 3.

REC 490 Senior Seminar in Therapeutic Recreation

Small group research and discussion of selected health and rehabilitation related issues that can affect the delivery of therapeutic recreation services in community and treatment settings. Students will be required to view their discipline through the examination of the research and literature of related disciplines. Included will be the opportunity to synthesize the internship experience and to evaluate critically the therapeutic recreation curriculum. Prerequisite: REC 494, REC 495. Cr 3.

REC 494 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, and risk management will be required. This course must be taken immediately prior to internship. Prerequisite: 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. Prerequisite: Recreation core courses and instructor's permission. Cr 9.

Division of Off-Campus Instruction and Academic Support

Director: John W. Bay

Director, Off-Campus Centers and Instructional Delivery: Kathleen H. Bouchard; *Coordinator, Saco-Biddeford Center:* Nate Greene; *Director, Sanford Center:* Lorraine Masure; *Director, Bath-Brunswick Center:* Dennis Hatch; *Director, Learning Assistance and Computer Assisted Instruction:* Robert Lemelin; *Coordinator of Developmental Math:* Carol Xanthopoulos; *Coordinator, Academic Support Centers:* Frank K. Carner; *Program/Production Coordinator, USM Television:* Caroline Hendry; *Administrative Manager, USM Television:* Ann Clarey; *Television Technical Operations Specialist:* Forest Spaulding

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 or co-sponsors off-campus centers in Bath-Brunswick, Saco-Biddeford, and Sanford. Each of these centers offers comprehensive academic counseling 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 needs of baccalaureate students. Additionally, the Division is responsible for the learning Assistance Program and for the course entitled Freshman Seminar.

Programs of Study

Associate Degree Offerings

Through the Division of Off-Campus Instruction and Academic Support, students may pursue a variety of associate degree programs at locations that are geographically convenient. Specific degree offerings include:

Liberal Arts (A.A.)

Business Administration (A.S.)

General Admission Requirements: Students desiring to pursue any associate degree program through the Division of Off-Campus Instruction and Academic Support are required to meet the admissions requirements as outlined under the specific degree program. Students questioning their qualifications should contact an academic advisor at the off-campus center of their choice to discuss possible alternatives.

Changing to a Baccalaureate Degree Program: Students desiring to change to one of the University's baccalaureate degree programs are advised to consult with an academic advisor regarding the process and the applicability of coursework toward their intended program.

Instructional Television (ITV)

Beginning in September 1984, credit courses were offered for the first time on the University of Southern Maine's Instructional Television (ITV) system. Courses are offered "live" on color television through a system that simultaneously connects classrooms at the Gorham and Portland campuses and 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

The Learning Assistance Program provides students with developmental instruction designed to help them achieve proficiency in writing (ENG 009) and in mathematics (MAT 009) and in critical reading (RDG 009). In addition, Academic Support Centers offering writing-across-the-curriculum

tutoring, study skills workshops, ESL tutoring, and access to academic support materials.

Freshman Seminar (FRS100)

The Division is responsible for the planning and delivery of this course which assists new students with the sometimes difficult transition into higher education. The course helps to build a strong foundation on which to build an academic career.

Off-Campus Centers

The Division of Off-Campus Instruction and Academic Support administers University courses and programs at three off-campus centers, Bath-Brunswick (a cooperative program with the University of Maine at Augusta), 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 career and academic counseling, is offered. Courses such as computer science, theatre, geology, economics, accounting, as well as many others are offered which meet the requirements for associate and baccalaureate degree programs. Also available is a program in writing and mathematics designed to meet the needs of those students who wish to strengthen their skills in these areas. Courses are offered both in the day and evening to accommodate the various schedules of students.

Bath-Brunswick Center

The University of Maine at Augusta and the University of Southern Maine (through the Division of Off-Campus Instruction and Academic Support) coordinate course offerings at the Bath-Brunswick Center. USM degree program offerings include an associate degree program in business administration. Those desiring information about counseling services, financial aid, courses, and degree programs should contact: Bath-Brunswick Center, 275 Bath Road, Brunswick, ME 04011; (207) 442-7070.

Saco-Biddeford Center

Located at Saco Island, the Saco-Biddeford Center offers courses carefully selected to fit program requirements for the Core curriculum and for completion of associate degrees, as well as some selections from a variety of baccalaureate programs. All courses are held on site with library resources available at nearby Dyer Library. In addition, a full range of student services is provided. For more information about programs, financial aid, or other academic counseling services contact: Saco-Biddeford Center, 2 Saco Island, Suite 101, Saco, Maine 04072; (207) 780-4492 or 282-4111.

Sanford Center

The University, through the Sanford Center, offers associate degree program opportunities in liberal arts and business administration. Persons interested in more information in areas such as academic advising, admissions, financial aid, registration or career counseling should contact: Sanford Center, 72 Pleasant Street, Springvale, Maine 04083; (207) 324-6012.

Programs and Requirements

Liberal Arts

This associate degree program is offered in conjunction with the College of Arts and Sciences. Graduates may change to a baccalaureate degree program with a maximum transferability of credits.

Admission Requirements: Admission is based upon the candidate's academic background and is consistent with admission requirements for the University's baccalaureate programs in the College of Arts and Sciences.

Business Administration

The associate degree program in business administration is offered off-campus in conjunction with the School of Business, Economics and Management and is designed to serve two purposes: 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 another institution.

While the program emphasizes business, it contains liberal arts courses including composition, fine arts, social sciences, humanities, and mathematics. Concentrations within the associate program offered off-campus include accounting and business administration.

Admission Requirements: Any high school graduate may apply for admission to the associate degree program. A college preparatory background is not necessary. On their application, students should specify the associate in business administration program.

ENG 009A Developmental English

This course is designed to help students who need to develop proficiency to enter ENG 100, College Writing. ENG 009 is taken on a pass/fail basis. Credit earned in ENG 009 does not apply or accumulate for any degree program at the University of Southern Maine. Cr 3.

ENG 019 Written Business Communication

Training in the writing of effective business reports, letters, and related material. Cr 3.

FRS 100 Freshman Seminar

An orientation to the University emphasizing its purpose, programs, and services. Basic academic skills, expectations, career planning and other topics will be covered. This course may be counted for elective credit only. Enrollment open only to freshmen with less than 25 credits. Cr 3.

MAT 009 Developmental Mathematics

A review of fundamental topics of arithmetic needed prior to a study of algebra. Topics include properties of whole numbers, place value, perimeter, area, volume, average, percent, graphs, proportion, exponents, 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 number systems, functions, graphs, the solution of equations, and the solution of problems with a business orientation. No prerequisites. Associate degree credit only. Cr 3.

MAT 011B Intermediate Algebra

A continuation of MAT 010. Prerequisite: MAT 010 or one year of high school algebra. Associate degree credit only. Cr 3.

RDG 009 Developmental Reading

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 may be taken on a pass/fail basis. Credit earned in RDG 009 does not apply or accumulate for any degree program at the University of Southern Maine. Cr 3.



Reserve Officers Training Corps

Professor: Lieutenant Colonel Gerald W. Barnes (U.S. Army)

Army ROTC Army ROTC offers male and female students of the University an opportunity to earn a commission in the United States Army while pursuing a bachelor's degree. Students register for military science courses as part of their regular undergraduate curriculum. For information, contact the ROTC office at 780-5255 or visit the office at 51 College Avenue, Gorham campus.

The Army ROTC program consists of a basic course and an advanced course. Normally, the basic course is taken during the student's freshman and sophomore years. However, other students may enroll in the basic course by receiving permission from the professor of military science. Students who have received previous military training (veterans, military academies, Junior ROTC, etc.) may be granted credit for the Basic Course or portions thereof as determined by the professor of military science. ROTC Basic Camp may be taken in lieu of the Basic Course as outlined in the course descriptions.

Students who 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 complete the advanced course are appointed second lieutenants in the United States Army, and can be commissioned in the National Guard, the Army reserve, or the active Army.

Scholarships Army ROTC scholarships for 2 and 3 years are available on a competitive basis. The scholarships are awarded annually. They defray the cost of tuition, books, lab fees, and school supplies. You can receive more information on these scholarships by calling 780-5255 or by visiting the ROTC office at 51 College Avenue, Gorham campus.

Professional Military Education

Prior to being commissioned, cadets/candidates must obtain the baccalaureate degree and have taken three required Professional Military Education (PME) courses. PME provides cadets with the type of academic foundation necessary to support their intellectual growth. Cadets must take at least one course from each of the following fields of study: written communications, human behavior, and military history. Courses in management and national security studies are strongly recommended, but are not required. Courses that satisfy PME requirements are listed below. Other courses need to be approved by the professor of military science.

Written Communication Skills

ENG	100C	College Writing
ENG	101C	Independent Writing
ENG	102	Term Paper Writing
ENG	103	Basic Grammar Usage
ENG	200	Advanced Essay Writing
ENG	300F	Creative Writing
ENG	301F	Fiction Writing
ENG	203F	Poetry Writing
ENG	210	News Writing
ENG	209	Business and Report Writing
ENG	232	Introduction to Linguistics
ENG	431	Seminar in Linguistics
ENG	310	Advanced Newswriting
ENG	400	Independent Study in Creative or Expository Writing

Human Behavior

PSY 101J	General Psychology I
PSY 102	General Psychology II
SOC 100J	Introduction to Sociology
SOC 200	Social Problems
SOC 202	Social Policy and Social Issues
ANT 102K	Biological Anthropology
BUS 452	Organizational Behavior
PHI 210	Ethical Theories
NUR 520	Ethical Issues in Health Care

Military History

MIS 222	Military History
HTY 244	20th Century Europe
HTY 256	World Wars I and II: European War and Diplomacy
HTY 343	Diplomatic History of the United States II
HTY 350	CIA: U.S. Foreign Intelligence Since Pearl Harbor
HTY 102I	Western Civilization II

Recommended Courses

National Security Studies

HTY 350	CIA: U.S. Foreign Intelligence Since Pearl Harbor
HTY 310	America Since 1938
POS 385	Peace and National Security
POS 389	International Law and Organization
POS 386	Arms and Negotiation
COR 112	International Conflict in the Nuclear Age
POS 104J	Introduction to International Relations

Management

ITP 380	Principals of Industrial Management
ABU 240	Principals of Management
ACC 201	Principals of Financial Accounting
ACC 202	Principals of Management Accounting
BUS 340	Principals of Management
BUS 371	Operations Research/Management Science

The Basic Course

To complete this course the student must complete the core curriculum or the student must complete ROTC Basic Camp (MIS 229). The core curriculum consists of MIS 111, 112, 221, and 222. The student may enter the Basic Course by taking any of the courses listed below, provided the course is listed in the schedule of classes for the semester concerned.

MTL 000 Leadership Laboratory

Leadership Lab is a requirement for all ROTC cadets. The purpose of Leadership Lab is to provide an environment wherein cadets can develop and improve their military leadership skills. Counseling and periodic evaluation of cadet performance are the primary methods used. (In case of class conflicts, an alternate Leadership Lab will be arranged to meet student requirements.) Cr. 0.

MIS III Introduction to ROTC and the U.S. Army I

The purpose and organization of the ROTC program. An overview of the defense establishment is presented. The importance of the Reserve components (U.S. Army Reserve and Army National Guard) is outlined; the future

direction of the U.S. Army is discussed. Student participation in Leadership Laboratory is required. Cr. 1.

MIS 112 Introduction to ROTC and the U.S. Army II

The role of officers and noncommissioned officers in the Army. Development of military customs, courtesies, and traditions. U.S. Army weapons and equipment. Soviet military power. Factors and instruments of national power and the attainment of national objectives. Participation in Leadership Lab is required. Cr. 1.

MIS 221 Map Reading and First Aid

Reading and interpreting maps and aerial photographs is taught. Marginal information, map grid coordinates, scale and distance, directions, use of the compass, intersection/resection, elevation and relief, GM angle, and map substitutes are a part of the map reading instruction. Study of basic life saving and first aid skills used in a field environment, including basic CPR techniques and heat and cold injury prevention. Student participation in Leadership Lab is required. Cr. 2.

MIS 222 American Military History

Development of the United States military system from Colonial times to present. Examination of the principles of war and the impact on military organizations and tactics is discussed. Participation in Leadership Lab is required. Cr. 2.

MIS 229 ROTC Basic Camp

A six-week summer camp conducted at Fort Knox, Kentucky. The student receives pay and travel costs are defrayed by the Army. The environment is rigorous and is similar to Army

Basic Training. The training includes the role and mission of the U.S. Army, map reading and land navigation, first aid, marksmanship, leadership, physical training, drill and parades, and tactics. Completion of MIS 229 satisfies all Basic Course requirements. Many cycles are offered during the summer. Basic Course applicants are accepted during the spring semester. Students apply for enrollment to the professor of military science. Selection for attendance is based on qualifications and merit. Cr. 6.

The Advanced Course

The courses listed below are required for completion of the Advanced Course. In addition, students are required to attend a six-week ROTC advanced camp at Fort Bragg, North Carolina between their junior and senior years. In exceptional cases, ROTC Advanced Camp may be deferred by the professor of military science until the student completes the senior year. Selected students may attend Ranger School in lieu of ROTC Advanced Camp.

MIS 331 Leadership

This course is designed to focus on leadership skills, traits, and principles necessary for success in the military or management positions. Fundamentals of counseling, Army training system, principles of war, management skills, communications, and ethics are reviewed and practiced. Participation in Leadership Laboratory is required. Cr. 3.

MIS 332 Advanced Tactics

Intensive preparation for Advanced Camp in tactics, land navigation, physical conditioning, and confidence building. Practical exercises in all areas will be incorporated in class and Leadership Labs. Prerequisites for Advanced Camp will be completed. Student participation in Leadership Laboratory is required. Cr. 3.

MIS 441 Military Management

Students are exposed to military law. An analysis of legal problems facing small unit

leaders is conducted. The Code of Conduct, management theory, motivation theory, training, personnel, and logistics management practices are taught. Management by Objectives (MBO) and Organizational Effectiveness (OE) theories are discussed. A framework of ethical actions is discussed and practiced. Student participation in Leadership Laboratory is required. Cr. 3.

MIS 442 Operations Seminar

Students are exposed to larger unit operations at the brigade and battalion level. The sequence of command and staff actions and problem-solving process are taught. The organization of the division, the brigade, and the battalion is outlined. Preparation of combat orders is taught and practiced. A discussion of current military problems in the leadership/management area is conducted. Participation in Leadership Laboratory is required. Cr. 3.

MIS 499 Independent Study

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 guidance of 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. Those courses available are the following.

MIS 070 Airborne School

A three-week school conducted at Fort Benning, Georgia, to train and qualify students in military parachuting. Students who graduate are awarded the Army Parachutist Badge. (pass/fail) Cr. 0.

MIS 075 Air Assault School

A ten-day school conducted at Fort Campbell, Kentucky, on the tactical utilization of Army helicopters and air transport procedures. Students who graduate 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. Course has a river phase, mountain phase, and glacier phase emphasizing military mountaineering skills. (pass/fail) Cr. 0.

Graduate Programs

Associate Provost: Stephen J. Reno, 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, Reading; 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)

School of Law

Dean: L. Kinvin Wroth; *Associate Dean:* David P. Cluchey

Professors: Carson, Cluchey, Delogu, Friedman, Gregory, Kandoian, Lang, Loper, Potter, Rogoff, Ward, Wroth, Zarr; *Associate Professors:* Brett, Mullane; *Visiting Associate Professors:* Khoury, Lawless, Soifer; *Visiting Assistant Professor:* Sheppard; *Lecturers:* Adelberg, Cleveland, Flanagan, Frank, Goldberg, Graf-fam, Hirshon, Howard, Hulbert, Lennet, Maiman, MacMahon, Rimmel, Rowe; *Adjunct Professors:* Coffin, Godfrey, Petrucci, Rieser, Wernick.

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 75-80 students per class, of whom approximately 50 percent are women; the number of students in the School is about 210, 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. 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 modern building, fully accessible for handicapped students, that provides excellent facilities for classroom and seminar discussion, library research, moot court participation, clinical practice, legal publications, and student activities.

Summer Session

Acting Director: Rosa S. Redonnett

During the summer the University offers over 300 credit and noncredit courses, and a number of institutes and programs. The Stonecoast Writers' Conference, an Elderhostel program, economic education institute for the classroom teacher, 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 3,000 students who enroll in academic courses, over 8,000 people attend summer conferences held in University facilities. Cultural events such as musicals, concert series, and poetry readings are also featured. 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, contact the Summer Session Office, University of Southern Maine, 106 Payson Smith, Portland, Me. 04103 or telephone 780-4076.

Office of Sponsored Research

Director: Robert J. Goettel

The Office is responsible for encouraging grant and contract initiatives that support program-related activities of 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 twelve USM institutes and centers and the academic units with which they are primarily affiliated are as follows:

Center for Business and Economic Research CBER is a unit of the School of Business, Economics and Management.

Center for Housing and Land Use CAH is a unit of the School of Business, Economics and Management.

Center for Real Estate Education CREE is a unit of the School of Business, Economics and Management.

Child and Family Institute The Child and Family Institute, within the Division of Human Resources, serves children, families, and those who work with children and families. CFI provides leadership and promotes excellence through a comprehensive delivery of educational programs, consultation services, library resources, research, networking, model program development, and advocacy. Contact the Institute at 780-5455 for further information.

Cumberland Legal Aid Clinic CLAC is a unit of the School of Law.

Human Services Development Institute HSDI is a unit of the Public Policy and Management Program.

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.

Office of Camping Resources Assists Maine's youth camps; publishes the *Directory of Maine Camps*; studies economic, management and program issues of camping on a state, regional, and national basis. OCR is administered by the Office of Sponsored Research.

Production Technology Center PTC is a unit of the School of Applied Sciences.

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.

See the appropriate school or college section of this catalog for further information.

Division of Public Service

Director: William G. Mortensen

Assistant to the Director: Ellen M. Corkery

The Division 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 1986-1987, over 50,000 persons participated in conferences, seminars, workshops, short courses, and certificate programs sponsored by the Division.

CEU Award System The Division 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 Division of Public Service at 68 High Street, Portland, Maine 04101, 874-6515.

Department of Continuing Education for Business

Director: Donald J. Clark

The Department of Continuing Education for Business (CEB) assists southern Maine employers by offering a variety of seminars, courses, and programs to meet identified needs. Through its program advisory groups, the department involves business and industry representatives in the planning, implementation, and evaluation of its offerings. Those individuals represent nearly all sectors of the regional economy as well as small, medium, and large firms.

CEB's instructional staff consists of faculty and staff from USM and individuals from business and industry. The expertise represented by these extensive resources covers nearly every potential topic of interest to area organizations.

All offerings of the department are noncredit and carry CEUs when they meet the requirements of certificate programs.

Representatives of business, industry, and nonprofit organizations desiring more information about the department's programs or services should contact Department of Continuing Education for Business, University of Southern Maine, 68 High Street, Portland, Me. 04101; telephone 874-6510.

Department of Conferences

Director: Kathleen S. LeBel;

Conference Coordinator: Cynthia M. Stocks

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.

An experienced conference staff is available to plan, coordinate, and facilitate the delivery of programs of virtually any size or duration. By using the University's conference services, the program initiator is free to concentrate fully on program content.

During the summer and, to a lesser extent during the academic year, the University's classrooms, auditoriums, recreational facilities, and dining services are available for use by conference groups. Residence halls are also available for housing from June to the end of August. All meetings are within easy reach of major educational facilities on both campuses. Two libraries allow conference participants ready access to reference materials. The University also maintains two well-equipped audio-visual departments, as well as a print shop.

Conference fees are determined by the Department of Conferences with the assistance of the conference sponsor's planning committee. While program costs will vary with the number of participants, duration of program, and special requirements, program fees are kept reasonable by utilizing University facilities and services whenever possible. The staff prepares a budget for each conference or workshop and presents to the sponsor a financial statement at the successful completion of the program.

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 Camp, and the "Ten-O" Gymnastics. The Department also offers Elderhostel each summer for people over 60 years of age.

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 offered by the Department are held at college campuses, in health facilities, and other appropriate locations and include workshops, seminars, conferences, and courses. Programs are available either on a fee basis or through specifically designed contracts with health care agencies.

Programs offered by the Department of Continuing Education for Nursing and Health Professions 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.

All programs are awarded CEUs and are approved by professional associations including The Maine State Nurses Association, and Maine Commission of Pharmacy. The following are examples of programs recently offered by the Department: The Annual Nurse-Pharmacist Conference; Physical Assessment Skills; Families in Crisis; Clinical Update for Nutritionists. For information call 874-6550.

Department of Community Programs

Director: Joanne Spear

Assistant Director: Nancy Viehmann; *Program Specialist:* Marc Levesque;
Administrative Staff Associate: Lucille Sheppard

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.

Courses are taught by instructors who are recognized experts in their fields. Instruction is usually designed so that participants can apply the knowledge and skills obtained to their specific situation.

Because of the rapidly changing programs within the personal enrichment category, only professional certificate programs are described in this catalog. Please contact the Department of Community Programs at 874-6500 for specific information regarding programs and courses of study in both categories.

Personal Enrichment Areas of Study: finance and investment; community leadership; interpersonal skills; creative skills; self-help; arts; parapsychology; women's issues.

Certificate Program for Legal Assistants This paraprofessional program will provide a sequence of training leading to a certificate in the broad range of legal services known as general practice.

The Legal Assistant Program is designed primarily for part-time students and courses are offered either twice a week in the evenings or in a one- or two-day seminar format.

Those wishing to obtain the certificate must apply for acceptance to the program and meet admission requirements. Only accepted candidates will be allowed to enroll in courses. The curriculum includes the following courses.

Level I: Introduction to Law and Paralegalism; Legal Research and Source Materials; Litigation; Estates, Wills and Trusts; Real Estate; Business Organizations; Bankruptcy/Secured Transactions; Domestic Relations; Legal Writing; Computers in the Law Office. Required seminars: Orientation to the Legal Assistant Profession, Interpersonal Skills and Interview Techniques.

Follow-up courses may be offered on a demand basis. Internships are also available with the approval of the Program Coordinator.

Computer Resource Center The department established the Computer Resource Center in the spring of 1985 to enhance and expand its existing computer courses to better accommodate needs of new and experienced personal computer users. The Computer Resource Center is equipped with IBM PC-compatibles. Participants in the Center's programs get hands-on experience with personal computers in order to become quickly familiar with a variety of business software and gain practical, usable skills. The courses offered use a "Computer Driver's Education" approach which allows people to use computers, much as they use automobiles, to accomplish a goal, rather than become experts on the computer's architecture. In addition to providing a variety of courses, the Center can design and deliver custom training programs to business on a contract basis.

Certificate Program for Personal Computer Coordinators Rapid increase in the use of personal computers in business, education, and government has created a new demand: the need for an in-house personal computer resource person. This role requires mastery of technical skills, ongoing review of new technology, knowledge of organizational environments, and the well-developed skills of analysis, interpersonal communications, consulting, and training. The program is designed to help develop people who are technically competent and can communicate their knowledge and skills to others for individual and organizational gain. Program content includes technical courses in word processing, disk operating systems, spreadsheets, databases, programming concepts, communications, and hardware. Professional development seminars focus on personal computers in organizations, interpersonal communication, consulting, training, and systems analysis. Each student is also required to complete a field-based project under the supervision of an advisor.

Applicants for the program must meet admission requirements.

Lifeline Program

Director: Robert Folsom

Assistant Director: Thomas Downing; *Acting Admissions Coordinator:* Peter Allen; *Exercise Specialists:* Len Jordan, Nick Branch, Gabe Williamson, Mary Moskowitz; *Medical Director:* Peter K. Shaw, M.D.

The Lifeline Adult Fitness Program is a comprehensive approach to total fitness through various programs of prevention, intervention, and rehabilitation. Members of the University community and the Greater Portland community participate in numerous Lifeline activities.

Lifeline also promotes adult learning through noncredit courses in stress management, smoking cessation, nutrition/weight control, and recreation. All Lifeline activities are designed to promote positive healthy lifestyles through education, exercise, and recreation. Many of the fitness activities require medical clearance. Application to all programs should be made well in advance. All inquiries are welcome at 780-4170.

Admissions Process As part of the initial entry into most Lifeline programs each person participates in a comprehensive admissions process. This includes exercise counseling, health risk appraisal, a full fitness evaluation including treadmill, and computerized exercise prescription. This experience is designed to meet the individual needs of the participants as they prepare to enter a formalized exercise program.

Aerobics Program

Walk/jog is a program designed for the sedentary person who, for one reason or another, is not in good physical condition. It is essentially a routine of walking/jogging, calisthenics, stretching, and relaxation techniques. Exercise begins slowly and progresses each week. At the end of ten weeks, one may elect to go into the intermediate program.

Energy in Motion is a comprehensive exercise program consisting of aerobic conditioning, muscular endurance and toning, postural flexibility, and relaxation. Floor exercises done to contemporary music make up the aerobic portion of the classes. Various relaxation techniques are utilized at the end of each class.

Aquatics is a cardiovascular exercise program for those who prefer swimming. Non-swimmers may also participate, as many of the exercises can be performed in the shallow end of the pool. A combination warmup/water calisthenics routine is followed by a peak exercise period where heart rates are elevated to improve cardiorespiratory endurance. The exercise session will end with a cool down period of slow walking and swimming and final stretch downs on the pool deck.

Low-Impact Aerobics is a basic exercise program for men and women. It includes components of light aerobics, flexibility and postural exercises, and relaxation techniques. A good program for individuals with little or no previous exercise habits.

Bodyshop helps people improve their posture and strength in a supervised program of weight training. A complete assortment of weight training equipment is available including Nautilus, Universal, and free weights. The Bodyshop Program is a sensible approach to progressive resistance weight training for improving body tone, muscular strength, power, and endurance. Individually prescribed programs of exercise are designed to meet the particular goals and needs of each participant.

Employee Wellness can assist a company in the development, implementation, and evaluation of multi-faceted programs based on the needs of both the company and its employees. Such tools as corporate health profiles, employee needs assessments, and health risk appraisals are available to aid in this process. Employee health/fitness programs can be instituted at both large and small companies.

Senior Fitness is designed for persons over 60 years of age, including those who require a low level of exercise. Cardiovascular conditioning, determined by individual age-predicted heart rates, includes stationary bike

riding, walking, or a combination of walking and jogging. Emphasis is placed on flexibility and postural muscle strength, accomplished through slow stretches and muscular improvement of specific muscle groups. Senior Fitness should be considered a maintenance exercise program where individuals progress at their own rate.

Heartline is a program of cardiac rehabilitation for post-coronary and high risk individuals. This is a physician-supervised class, utilizing walking, jogging, and swimming to recondition persons who need close supervision while exercising. All participants must be referred to Heartline by their personal physician. While Heartline provides medical supervision during the exercise session, it is not intended to replace the role of the primary physician. Throughout the program, periodic reports are sent to the primary physician and all significant events are promptly reported. Heartline is intended to improve communications between the participant and his or her personal physician. All necessary forms are provided by the Heartline office. All participants must enter the program at the start of a new session.

Pulmonary Rehabilitation is a comprehensive program of exercise, education, and proper medical management for patients with chronic obstructive pulmonary disease. This is accomplished by increasing their awareness of their disease and its management, and through participation in a progressive cardiopulmonary exercise program, thereby enabling adaptation to improve lifestyles. Participants are enrolled in the program only after referral from their primary care physician.

Love Your Back is a six-week program consisting of progressive low-level exercise routines combined with periodic educational sessions. Emphasis is placed upon the improvements of postural and muscular strength and endurance, body flexibility, and relaxation techniques. Along with the exercise sessions specific time is devoted to topics relating to low back problems. Such items as body anatomy and physiology, causation factors, body mechanics, and nutrition will be integrated into the ten-week program. Medical clearance is required for all participants regardless of age. Appropriate medical forms will be provided for your physician to sign.

Youth Weight Training/Conditioning Program is a supervised training program for boys and girls 14 to 17 years of age. Courses are offered throughout the year utilizing the Lifeline Bodyshop. The program is designed to teach proper conditioning values and techniques; increase muscular strength and endurance; increase flexibility; and increase cardiovascular conditioning.

Lifeline Leisure Learn is designed to make University gymnasium facilities and recreation and fitness activities available to students, faculty and staff, alumni, and the general public. Group activities, offered in the form of courses, one day clinics and workshops, include: Aikido, Tai Chi Ch'uan, Shiatsu, massage, Eastern exercise, volleyball tournaments, white water canoeing, bicycling, flycasting, racquetball, cooperative games, and wellness weekend.

Lifeline Lifestyle Courses

Weight Wise is a nine-week course using a many-sided approach to weight reduction. The primary emphasis is on the individual identification and solution to problem eating behaviors which may lead to or maintain overweight conditions. Proper nutrition and eating plans are emphasized and developed for participants, along with discussion on the value and myths of exercise.

Smoke-Free This course, offered for five weeks, is designed to assist the smoker in making the decision to stop smoking and does not offer false hopes of 100 percent success. The primary purpose is to help the smoker identify reasons for smoking and through group support make some decisions about possibly stopping.

Note: Certain Lifeline programs may be taken for academic credit. Information on these courses may be found in the course registration outline.



University of Southern Maine Alumni Association

The University of Southern Maine Alumni Association enrolls more than 20,000 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, Gorham State College of the University of Maine, University of Maine at Portland-Gorham, and the University of Southern Maine.

The Association is governed by a 16-member Board of Directors and a 30-member Advisory Council.

The Alumni Association of USM works to expand the tradition of service both to the alumni and the USM community, carrying on a tradition established some years ago at the Gorham campus, and more recently at the Portland campus. Students are urged to visit the Alumni House and to get acquainted with the people and programs of the Alumni Association before graduation. All students, as well as former students, are cordially welcomed.

The Alumni Office is located in the Alumni House on the Portland campus. The land surrounding the Portland campus was first cleared for settlement during the lifetime of George Cleaves, who obtained it from Sir Ferdinando Gorges in 1637. Two of Portland's bloodiest Indian forays took place within a gunshot of this site. Eventually the land, known as the Back Cove Farm, was transformed into a businessman's country estate under the ownership of James Deering in 1802. The land was acquired in 1946 for Portland Junior College, a predecessor to the University of Southern Maine, and the Alumni House is now the only remaining building of that original property.

Administration of the University of Southern Maine

Administrative Organization as of June 1, 1988

President: Patricia R. Plante, 228 Deering Avenue, Portland tel: 780-4480
Provost and Vice President for Academic Affairs: Helen L. Greenwood, 228 Deering Avenue, Portland tel: 780-4485
Vice President for Administration: Samuel G. Andrews, 11 Granite Street, Portland tel: 780-4484
Vice President for Student Affairs: Larry G. Benedict, 110 Payson Smith Hall, Portland, tel: 780-4035
Vice President for Development and External Affairs: Stephen T. Honey, 622 Law Building, tel: 780-4382

Administrative Offices Serving Students

Admissions

David G. Behrs, Director

Advising and Academic Information

Richard H. Sturgeon, Director

Applied Science, School of

Brian C. Hodgkin, Dean

Arts & Sciences, College of

Dave D. Davis, Dean

Athletics

Richard A. Costello, Director

Business, Economics and Management, School of

Richard J. Clarey, Dean

Business Office

William B. Bullock, Business Manager

Child Care Services

Stephen F. Lehané, Director

Counseling & Career Development

Ira Hymoff, Director

Education, College of

Dorothy D. Moore, Dean

Educational Media Service

Ronald W. Levere, Director

Financial Aid, Student

Helen F. M. Parker, Director

Graduate Affairs, Office of

Stephen J. Reno, Associate Provost

Law, University of Maine School of
L. Kinvin Wroth, Dean

Libraries

George Parks, Librarian

Nursing, School of

Nancy P. Greenleaf, Dean

Off-Campus Instruction and Academic Support, Division of

John W. Bay, Director

Police and Safety

Coin P. Hauk, Director

Public Service, Division of

William G. Mortensen, Director

Registrar's Office

John E. Keysor, Registrar

Residence Life

Joseph M. Austin, Director

Student Activities and Campus/Student Centers

Judith S. Ryan, Director

Student Testing and Assessment, Office of

David L. Silvermail, Director

Summer Session

Rosa S. Redonnett, Acting Director

EMERITI

Bigelow, Gordon S. (1971-1986) Brown University, A.B., 1954; University of Maine, M.Ed., 1962; Brigham Young University, A.M., 1966; Ph.D., 1967, Dean of Educational Services Emeritus

Bowman, James A. (1949-1974) Gorham State Teachers College, B.S., 1947; Boston University,

Ed.M., 1951; Associate Professor Emeritus of Educational Psychology

Chandler, Joseph (1968) Bowdoin College, A.B., 1942; University of Maine, M.B.A., 1967; University of New Hampshire, M.A., 1971; Associate Professor Emeritus of Business Administration

Clarke, Alfred (1946-1971) Dartmouth College, A.B., 1928; Admissions Director Emeritus

Dickey, Edna F. (1946-1973) University of New Hampshire, B.A., 1933; M.A., 1936; Associate Professor Emerita of History

Emerson, Horton W., Jr. (1962-1985) Colby College, A.B., 1949; Yale University, Ph.D., 1957; Professor Emeritus of History

Goodwin York, Jeanette L. (1955-1981) Sargent College, B.S., 1944; Springfield College, Ed.M., 1955; Associate Professor Emerita of Physical Education and Dance

Hanna, John G. (1963-1984) Trinity College, 1963; Harvard University, M.A., 1946; Boston University, Ph.D., 1958; Professor Emeritus of English

Hopkinson, David B. (1959-1983) University of Maine, B.S., 1942; University of Vermont, B.S., 1949; University of Maine, M.E., 1961; P.E. (Maine); Associate Professor Emeritus of Engineering

Kern, Abraham K. (1959-1977) Bowdoin College, A.B., 1936; University of Maine, M.Ed., 1956; Professor Emeritus of Biology

Kerr, Elizabeth F. (1957-1974) Marygrove College, B.S., 1939; Columbia University, A.M., 1946; Ed.D., 1956; Professor Emerita of Education

Kreisler, Joseph D. (1972-1988) Oklahoma University, B.A., 1947; Columbia University, M.A., 1949; M.S.W., 1959; Associate Professor Emeritus of Social Work

Lawrence, Harold Merrill (1946-1972) Boston University, B.S., 1940; Business Manager Emeritus

MacLean, Jean (1958-1975) Boston University, B.S., 1930; Yale University, B.N., 1933; University of Chicago, M.S., 1948; Professor Emerita of Psychiatric Nursing

Miller, Robert N. (1946-1977) Colby College, A.B., 1936; Professor Emeritus of Geology

Mitchell, John (1947-1977) Fitchburg State College, B.S., 1939; University of Minnesota, M.A., 1947; Pennsylvania State University, Ed.D., 1954; Professor Emeritus of Industrial Arts

Peabody, Mildred (1952-1973) Gorham State College, B.S., 1939; Boston University, Ed.M., 1952; Associate Professor Emerita of Education

Peirce, John A. (1965-1984) University of Maine, B.S., 1962; University of Virginia, M.A., 1965; Ph.D., 1971; Professor Emeritus of Political Science

Romanyshyn, John M. (1953-1981) University of Oklahoma, B.A., 1942; University of Chicago, M.A., 1952; Professor Emeritus of Social Welfare

Saldanha, Estelita L. (1966-1985) University of Lisbon, B.A., 1943; University of Nebraska, B.S., 1946, M.A., 1947; Cornell University, Ph.D., 1950; Professor Emeritus of Psychology

Sawtelle, Gwen D. (1938-43;53) University of Minnesota, B.S., George Peabody College for Teachers, M.S., 1939; Associate Professor Emerita of Arts

Weeks, Ernest E. (1951-59;67-83) Bowdoin College, A.B., 1939; Tufts University, M.A., 1949; Columbia University, Ph.D., 1965; Professor Emeritus of English

Whitten, James M. (1951-1982) Colby College, A.B., 1944; University of Maine, M.A., 1955; Associate Professor Emeritus of Education

Whitten, Maurice M. (1955-1983) Colby College, A.B., 1945; Columbia University, M.A., 1949; Ohio State University, Ph.D., 1971; Professor Emeritus of Chemistry

Witherill, Robert D. (1966-1983) Colby College, A.B., 1947; University of Maine, M.A., 1953; M.Ed., 1962; Associate Professor Emeritus of Economics

Wood, Esther E. (1930-1972) Colby College, A.B., 1926; Radcliffe College, M.A., 1929; Associate Professor Emerita of Social Sciences

York, Robert M. (1962-1984) Bates College, A.B., 1937; Clark University, M.A., 1938; Ph.D., 1941; Professor Emeritus of History

Young, Anne P. (1965-1984) Boston University, B.S., 1943; M.A., 194; University of Chicago, Ph.D., 1951; Professor Emerita of History

FACULTY & STAFF

Abrams, Richard H. (1979) Associate Professor of English; McGill University, B.A., 1964; University of Pennsylvania, M.A., 1965; University of New York, Ph.D., 1968

Adams, Julia (1978) Artist in Residence, Music; Oberlin College, B.A., 1962; San Francisco State College, M.A., 1966

Aiello, Frederick (1983) Associate Professor of Associate Business Administration, Northeastern University, B.S., B.A., 1971; M.B.A., 1974

Albee, Parker E., Jr. (1966) Associate Professor of History; Dartmouth College, A.B., 1961; Duke University, M.S., 1964; Ph.D., 1968

Allen, Bruce A. (1970) Associate Professor of Mathematics Education; Gorham State College, B.S., 1960; M.S., 1967; Boston University, Ed.D., 1973

Allen, Peter S. (1983) Acting Admissions Coordinator, Lifeline Adult Fitness Program; Springfield College, B.S., 1982

Amerling, Joan (1987) School of Law Director of Development, Alumni Relations and Placement; Mount Holyoke College, B.A., 1966

Amoroso, Henry C. (1982) Director, Core Curriculum and Associate Professor of Education; St. Michael's College, B.A., 1966; Goucher College, M.Ed., 1966; University of Wisconsin, Ph.D., 1978

Anderson, Andrew L. (1975) Associate Professor of Technology; University of Wisconsin at Platteville, B.S., 1973; M.S., 1975; Iowa State University, Ph.D., 1983

Andrews, Bruce H. (1974) Associate Professor of Business Administration; Research Associate, Center for Business and Economic Research and Director, Master's in Business Administration Program, School of Business Economics and Management; University of

- Connecticut, B.A., 1967; Polytechnic Institute of New York, M.S., 1969; Ph.D., 1980
- Andrews, Samuel G.** (1966) Vice President for Administration; Babson College, B.S., 1964; University of Maine, M.S., 1966
- Anspach, Donald F.** (1970) Associate Professor of Sociology; Franklin and Marshall College, A.B., 1964; Western Reserve University, M.A., 1966; Case Western Reserve University, Ph.D., 1970
- Armentrout, Charles E.** (1960) Associate Professor of Physics; University of Maine, B.A., 1955; Wesleyan University, M.A., 1958; Columbia University, M.S., 1970
- Asen, Leslie R.** (1982) Laboratory Coordinator, Social Welfare; Boston University, B.S. 1974; Boston University, M.S.W., 1978
- Ashley, Kathleen M.** (1978) Associate Professor of English; Duke University, B.A., 1969; M.A., 1970; Ph.D., 1973
- Atkinson, Robert** (1987) Assistant Professor of Education/Human Resource Development; Long Island University, B.A., 1967; SUNY, Cooperstown, M.A., 1969; University of New Hampshire, M.A., 1981; University of Pennsylvania, Ph.D., 1985
- Atterbury, Betty W.** (1985) Assistant Professor of Music Education; State University of New York, B.S., 1959; City University of New York, Hunter College, M.S., 1976; Northwestern University, Ph.D., 1982
- Austin, Joseph M.** (1981) Director of Residence Life; University of Maine at Orono, B.A., 1976; M.Ed., 1981
- Austin, Nancy** (1987) Assistant Professor of Education; State University of New York at Buffalo, B.S., 1968; Columbia University, M.A., 1974; Ed.D., 1984
- Avery, Deborah D.** (1974) Job Developer, Counseling and Career Development
- Ayers, George H.** (1959) Associate Professor of Physical Science; University of Maine, B.A., 1951; Ohio State University, M.A., 1959
- Baier, Lee S.** (1966) Associate Professor of English; Reed College, A.B., 1948; Columbia University, M.S., 1952; Ph.D., 1965
- Banner, Gerald T.** (1968) Head of Acquisitions; New School for Social Research, B.A., 1965; Pratt Institute, M.L.S., 1967
- Bannon, Sharon L.** (1987) Acting Academic Counselor, School of Business, Economics and Management; Bethany College, B.A., 1979
- Baron, Catherine A.** (1976) Administrative Manager, Human Services Development Institute, Public Policy and Management Program
- Bay, John W.** (1965) Director, Division of Off-Campus Instruction and Academic Support, Instructional Television and Title III Coordinator and Associate Professor of Economics; Saint Ambrose College, B.A., 1961; Boston College, M.A., 1964; Ph.D., 1966
- Bayley-Smith, Beverly J.** (1981) Administrative Manager, Marine Law Institute, School of Law; Plus Gray School of Business, A.B., 1971
- Baxter, Ralph** (1986) Parenting Center Coordinator, Child Care Services; University of Maine at Orono, B.S., 1953; M.Ed., 1970, M.Ed., 1971
- Bazinnet, Gregory P.** (1979) Assistant Professor of Technology; University of Southern Maine, B.S., 1977; M.S., 1981
- Bean, Albert** (1985) Coordinator of Media Relations and Development; University of Southern Maine, B.S., 1977
- Bean, Judith A.** (1974) Benefits Specialist
- Beauce, Jeana Dale** (1965) Professor of Art; Washington University, B.F.A., 1951; New Mexico Highlands University, M.A., 1954
- Behrs, David G.** (1988) Director of Admissions; Elizabethtown College, B.S., 1981; Shippensburg University, M.S., 1985
- Beirne, Piers** (1982) Professor of Sociology and Legal Studies; Essex University (England), B.A., 1971; Durham University (England), Ph.D., 1975
- Benay, Phyllis** (1987) Peer Advising Coordinator/Academic Counselor; Brooklyn College, B.A., 1974; New York University, M.A., 1976
- Benedict, Diane** (1984) Associate Professor of English; Goddard College, B.A., 1976; M.E.A., 1979
- Benedict, Larry G.** (1988) Vice President for Student Affairs; University of Massachusetts, B.A., 1967; M.Ed., 1970; Ed.D., 1983
- Benson, Mary Ann** (1982) Coordinator of Placement and Academic Internships; SUNY at Cortland, B.A., 1973; SUNY at Plattsburgh, M.S., 1976
- Berg, Claire M.** (1984) Head Lifeline Nurse; University of Southern Maine, B.S., 1972
- Bernacchio, Charles P.** (1985) Research Assistant, Human Services Development Institute, Public Policy and Management Program; Boston University, B.S., 1971; Boston College, M.Ed., 1980
- Bernard, Anne** (1978) Research Assistant, Human Services Development Institute, Public Policy and Management Program
- Bernotavicz, Freda** (1985) Research Associate, Human Services Development Institute; Nottingham University (England), B.A., 1963; Syracuse University, M.S., 1966
- Berry, Arthur O.** (1955) Associate Dean, School of Applied Science, Professor of Industrial Education, Gorham State College, B.S., 1950; Pennsylvania State University, Ed.M., 1954; University of Connecticut, Ph.D., 1967
- Bessey, Wendy H.** (1987) Research Assistant III, Human Services Development Institute, Public Policy and Management Program; University of Maine, B.A., 1985
- Bibber, Joyce K.** (1967) Associate Professor of History; Westbrook Junior College, A.A., 1956; Barnard College, B.A., 1958; Stanford University, M.A., 1962; Ph.D., 1969
- Bishop, John S.** (1968) Professor of Psychology; University of New Brunswick, B.A., 1953; Dalhousie University, M.A., 1957; University of London, Ph.D., 1958

- Blauvelt, Lon** (1987) Manager of Project Coordination, Facilities Management; Lehigh University, B.S., 1954
- Blazek, Jerry** (1986) Director of Labor Relations; Division of Human Resources; Ohio University, B.A. 1972; M.A.P.A., 1977
- Blinick, Kathie L.** (1980) Director, Office for Prior Learning Assessment; University of Mississippi, B.A., 1969; University of New Hampshire, M.A., 1986; Memphis State University, M.Ed., 1975; Ed.D., 1980
- Boden, John C.** (1981) Associate Professor of Music; Northwestern University, B.M., 1974; University of Missouri at Kansas City Conservatory, M.M., 1981
- Boisclair, Daniel F.** (1985) Manager of Engineering and Technical Assistance; University of New Hampshire, B.S.M.E., 1981
- Bolton, Linda G.** (1987) Staff Associate, Student Financial Aid; University of New Hampshire, B.S., 1975
- Bondeson, Janice M.** (1981) Research Assistant, Human Services Development Institute, Public Policy and Management Program; Wheaton College, B.A., 1960
- Boothby, Nancy** (1987) Director, Equal Employment Opportunity; St. Lawrence University, B.A., 1967
- Bouchard, Joey A.** (1968) Associate Professor of Physical Education; Springfield College, B.S., 1960; M.Ed., 1961; Boston University, C.A.S., 1968
- Bouchard, Kathleen H.** (1969) Director, Off-Campus Programs and Instructional Delivery; Western Michigan University, B.A., 1966; Indiana University, M.S., 1969
- Boutet, Bruce P.** (1986) Research Assistant, Small Business Development Center, School of Business, Economics and Management; University of Maine at Orono, B.A., 1975; Metropolitan State College, B.S., 1986
- Bowder, Jerry L.** (1960) Professor of Music; University of Washington, B.A., 1952; Lewis and Clark College, M.M., 1956; Eastman School of Music, Ph.D., 1960
- Boyle, Conrad L.** (1982) Associate Professor of Marketing; United States Military Academy, B.S., 1959; University of Florida, M.B.A., 1964; University of Washington, Ph.D., 1982
- Brady, E. Michael** (1984) Associate Professor, Department of Human Resource Development, College of Education; St. Mary's Seminary & University, A.B., 1971; The University of Connecticut, M.S.W., 1977; St. Mary's Seminary & University, M. Div., 1980; The University of Connecticut, Ph.D., 1982
- Brady, James B.** (1969) Head of Special Services; State University of New York at Albany, B.S., 1967; M.L.S., 1969; University of Illinois, C.A.S., 1977
- Branch, Nicholas G.** (1980) Lifeline Exercise Specialist; Beloit College, B.A., 1973
- Brazier, Lawrence** (1977) Director of Management Information Systems; Southwest Missouri State University, B.S., 1966; Florida State University, M.A., 1974
- Brett, Tybe Ann** (1983) Associate Professor of Law; Barnard College, B.A., 1977; Columbia University School of Law, J.D., 1979
- Briggs, David A.** (1984) Assistant Professor of Computer Science; Swarthmore College, B.A., 1975; University of Massachusetts at Amherst, M.S., 1984
- Broida, John P.** (1985) Assistant Professor of Psychology; University of Colorado at Boulder, B.S., 1973; Western Illinois at Macomb, M.S., 1976; State University of New York at Albany, Ph.D., 1984
- Brown, Alan** (1983) Assistant Manager, Gorham Bookcellar
- Brown, D. Robert** (1987) Lecturer in Physical Education and Men's Basketball Coach; Boston University, B.S., 1960
- Brown, Sarah A.** (1986) Research Assistant, Human Services Development Institute, Public Policy and Management Program; Northeastern University, B.S., 1980; University of California at Berkeley, M.S.W., 1983
- Brown, Scott W.** (1987) Assistant Professor of Psychology; Goddard College, B.A., 1974; University of Maine, Ph.D., 1984
- Brown, Vinita** (1986) Head Teacher, Child Care Services
- Brown, William A.** (1960) Associate Professor of Mathematics; Bowdoin College, B.A., 1954; University of Maine, M.A., 1959
- Broyles, India L.** (1986) Assistant Professor of Education; Georgia College, B.S., 1968; M.Ed., 1975; University of Georgia, Ed.D., 1983
- Brysh, Janet E.** (1976) Librarian, Office of Sponsored Research; Marymount College, B.A., 1958; Hunter College, M.A., 1964; Rosary College, M.L.S., 1968
- Buch, Camille** (1983) Assistant Director of Publications; Central Washington University, B.A., 1977; M.A., 1982
- Bullock, William B.** (1970) Business Manager; Cornell University, B.S., 1954; M.B.A., 1959
- Burk, George** (1985) Associate Professor of Art; Indiana University, B.A., 1961; M.F.A., 1963
- Burke, Kathy Ann** (1983) Acting Associate Director of Financial Aid; University of Southern Maine, B.A., 1981
- Burke, L. Morrill** (1959) Associate Professor of English; Bowdoin College, A.B., 1949; University of Washington, M.A., 1951; Columbia University, Ph.D., 1971
- Burke, Patrick H., Maj.** (1987) Assistant Professor of Military Science; Villanova University, A.B., 1970; University of Southern Maine, M.B.A., 1979
- Burson, Janet Z.** (1978) Associate Professor, School of Nursing; Syracuse University, B.S., 1964; Oregon State University, M.S., 1975
- Burtchell, Veda** (1972) Coordinator of Space and Scheduling
- Caffentzis, Constantine G.** (1987) Assistant Professor of Philosophy and Honors Program;

- City College of the University of New York, B.A., 1966; Princeton University, Ph.D., 1978
- Callender, Willard D., Jr.** (1962;1972) Professor, Department of Human Resource Development, College of Education and Senior Research Associate, Human Services Development Institute, Public Policy and Management Program; Bates College, B.A., 1958; University of Connecticut, M.A., 1960; Ph.D., 1967
- Cameron, Ardis** (1988) Assistant Professor of New England Studies; Western College for Women, Miami University, B.A., 1970; Stetson University, M.A., 1973; Boston College, Ph.D., 1986
- Cameron, Julia M.** (1983) Director of Publications; Bates College, B.A., 1972
- Campbell, Anne B.** (1978) Project Coordinator/Child Development Specialist, Child and Family Institute and Assistant Professor of Education; Vermont College, A.A., 1961; Scarritt College, B.A., 1965; George Peabody College, M.A., 1967; Ed.S., 1969; University of Illinois, Ph.D., 1975
- Campbell, Richard R.** (1973) Associate Executive Director for Financial Resources; University of Maine at Portland-Gorham, B.S., 1974
- Carner, Frank K.** (1970) Associate Professor of English and Coordinator, Academic Support Centers; Temple University, B.S., 1964; M.A., 1967; University of Toronto, Ph.D., 1976
- Carper, Thomas R.** (1967) Associate Professor of English; Harvard University, A.B., 1958; New York University, M.A., 1967; Boston University, Ph.D., 1973
- Carson, Loftus C., II** (1980) Professor of Law; Cornell University, B.S., 1968; Princeton University, M.P.A., 1970; Harvard University, J.D., 1973; University of Pennsylvania, M.B.A., 1980
- Carter, Richard H.** (1964) Associate Professor of Technology; Gorham State College, B.S., 1954; University of Maine, Ed.M., 1964; Boston University, C.A.S., 1971
- Caswell, Robert S.** (1980) Director of Media Relations; University of Southern Maine, B.A., 1974
- Cassidy, Donna M.** (1987) Assistant Professor of Art; University of Lowell, B.A., 1979; Boston University, M.A., 1982; Ph.D., 1988
- Caton-Lemos, Laurie** (1988) Instructor of Nursing; University of Southern Maine, B.S., 1979, M.S., 1987
- Chabot, Maurice J.** (1965) Associate Professor of Mathematics; University of Maine, B.A., 1961; Bowdoin College, M.A., 1965
- Chipman, Carol K.** (1980) Coordinator of New Student Advising/Academic Counselor; University of Southern Maine, B.A., 1976
- Ciampi, Louis A.** (1970) Physician, Student Health Center; Dalhousie Medical School (Nova Scotia), M.D., 1959
- Ciampi, Patricia** (1980) Professional Nurse, Student Health Center; Mercy Hospital, R.N., 1961
- Cipollone, Domenica T.** (1977) Director of International Student Programs and Exchanges; University of Cincinnati, B.A., 1969; University of the Americas (Mexico), M.A., 1974
- Clarey, Ann E.** (1985) Administrative Manager, Off-Campus Instruction and Academic Support; University of Southern Maine, B.A., 1985
- Clarey, Richard J.** (1979) Dean, School of Business, Economics and Management; Associate Professor of Management; Director, New Enterprise Institute, Center for Business and Economic Research; Bowdoin College, B.A., 1961; Dartmouth College, M.B.A., 1963; Cornell University, Ph.D., 1968
- Clark, Donald J.** (1986) Director, Department of Continuing Education for Business; Williams College, B.A., 1954; Union Theological Seminary, M.Div., 1957
- Clary, Bruce B.** (1987) Professor of Public Policy and Management; University of California at Santa Barbara, B.A., 1968; University of Southern California, M.A., 1970; Ph.D., 1974
- Clement, M. Gregory** (1985) Assistant Director of Student Activities; Husson College, B.S., 1981; Salem State College, M.Ed., 1985
- Cluchey, David P.** (1979) Associate Dean and Professor of Law; Yale University, B.A., 1968; State University of New York, M.A., 1970; Harvard Law School, J.D., 1973
- Coakley, Robert W.** (1984) Associate Professor of Physics; Ohio State University, B.S., 1965; Dartmouth College, M.A., 1968; University of Vermont, Ph.D., 1974
- Coburn, Andrew E.** (1981) Acting Director and Research and Advanced Study Associate, Human Services Development Institute, Public Policy and Management Program; Assistant Professor of Public Policy and Management; Brown University, A.B., 1972; Harvard Graduate School of Education, Ed.M., 1975; Brandeis University, Ph.D., 1981
- Coffin, Frank M.** (1985) Adjunct Professor of Law; Bates College, A.B., 1940; Harvard University, L.L.B., 1943
- Coffin, Richard N.** (1964) Associate Professor of English; Bowdoin College, B.A., 1951; Harvard University, A.M., 1952; Boston University, Ph.D., 1962
- Cohen, Libby G.** (1980) Associate Professor of Special Education; University of Connecticut, B.A., 1967; Russell Sage College, M.S., 1971; Boston University, Ed.D., 1977
- Cojuc, Juan-Ricardo** (1984) Assistant Professor of Communication; Universidad Ibero Americana, Mexico, B.A., 1973; University of Michigan, Ph.D., 1988
- Cole, Phillip A.** (1957) Professor of History; Boston University, B.S., 1954; M.A., 1955; Ph.D., 1963
- Cole, Ronald E.** (1963) Professor of Music; Bowdoin College, B.A., 1961; Eastman School of Music, M.A., 1963; Indiana University, Ph.D., 1975

- Coleman, Loren** (1983) Research Assistant, Human Services Development Institute, Public Policy and Management Program; Southern Illinois University, B.A., 1976; Simmons College School of Social Work, M.S.W., 1978
- Collins, Mary I.** (1976) Staff Development Director, Division of Human Resources; Boston University, B.A., 1963; University of Colorado, M.S., 1968
- Colucci, Nicholas D., Jr.** (1969) Associate Professor of Education; Gorham State College, B.S., 1963; University of Connecticut, M.A., 1964; Ph.D., 1969
- Conforti, Joseph A.** (1987) Director of New England Studies and Professor of History; Springfield College, B.S., 1967; Brown University, A.M., 1972; Ph.D., 1975
- Connolly, Judith M.** (1985) Admissions Counselor; Smith College, A.B., 1962
- Conway, Jeremiah P.** (1978) Associate Professor of Philosophy and Director; University Honors Program; Fordham University, B.A., 1970; Yale University, M.Phil., 1974; Ph.D., 1978
- Coogan, William H., III** (1972) Associate Professor of Political Science; Boston College, B.A., 1963; Rutgers University, M.A., 1964; University of North Carolina, Ph.D., 1971; University of Maine School of Law, J.D., 1988
- Cooper, Suzanne G.** (1987) Acting Coordinator of Handicapped Student Services; Bridgewater State College, B.S., 1974; University of New Hampshire, M.Ed., 1983
- Corkery, Ellen M.** (1966) Assistant to the Director, Division of Public Service; Husson College, A.B.A., 1966; University of Southern Maine, B.A., 1983; M.S., 1987
- Corson, Doane B.** (1966) Maintenance Project Coordinator; Southern Maine Vocational Technical Institute, 1958
- Costello, Melissa H.** (1953) Associate Professor of Education and Director of Clinical Experiences; Gorham State College, B.S., 1952; University of Maine, Ed.M., 1957; C.A.S., 1960
- Costello, Richard A.** (1953) Director, Intercollegiate Athletics and Professor of Health and Physical Education; University of Alabama, B.S., 1952; University of Illinois, M.S., 1953; Springfield College, D.P.E., 1965
- Cousins, Alice** (1985) Head Teacher, Child Care Services; University of Southern Maine, B.S., 1971
- Crader, Diana C.** (1987) Assistant Professor of Anthropology; University of California, Berkeley, B.A., 1971; M.A., 1974; Ph.D., 1981
- Crochet, Monique Y.** (1970) Associate Professor of French; University of Paris, Sorbonne, Licence d'Anglais, 1959; Diplôme d'Études supérieures and C.A.P.E.S., 1960; Doctorat de l'Université de Paris, 1969
- Cronkhite, Linda M.** Assistant Professor of Nursing; Mary Manse College, B.S., 1966; Boston University, M.S., 1972
- Crosby, Marilyn C.** (1970) Coordinator of Gorham Student Health Center and Family Nurse Practitioner, Clara Maass Hospital, R.N., 1960; University of Maine at Portland-Gorham, B.S., 1978; University of Southern Maine, F.N.P., 1982
- Curry, James A.** (1985) Associate Professor of Education; Whitworth College, B.A., 1969; University of Georgia, M.Ed., 1973; Ed.D., 1985
- Czupryna, Louise** (1980) Associate Professor; School of Nursing; Montana State University, B.S., 1974; University of Colorado, M.S., 1976
- Daeris, Deborah L.** (1987) Admissions Counselor; University of New Hampshire, B.A., 1975
- Dalvet, Yves E.** (1968) Associate Professor of French; Laval College, B.A., 1940; New York University, M.A., 1965; Yale University, M.Phil., 1969
- Davis, Carol Lynn** (1982) Associate Professor, Department of Human Resource Development, College of Education; University of Maine at Orono, B.A., 1968; M.S., 1977; Ph.D., 1983
- Davis, Dave D.** (1988) Dean, College of Arts and Sciences; University of New Orleans, B.A., 1972; Yale University, M.Phil., 1974; Ph.D., 1975
- Davis, Everett A.** (1966) Assistant Professor of Education; Gorham State College, B.S., 1961; Indiana University, M.S.Ed., 1966; Ed.S., 1972
- Davis, Michael N.** (1985) Research and Advanced Study Associate, Small Business Development Center, School of Business, Economics and Management; Ohio University, B.A., 1981; M.A., 1982
- DeGrandpre, Charles** (1986) Farm Superintendent, Wolfe's Neck Farm; Essex Agricultural and Technical Institute, 1945
- Delogu, Orlando E.** (1966) Professor of Law and Public Policy; University of Utah, B.S., 1960; University of Wisconsin, M.S., 1963; J.D., 1966
- DeMarse, George G., Cpt.** (1986) Assistant Professor of Military Science; Westminster College, B.A., 1979
- Deprez, Luisa S.** (1976) Associate Professor of Social Welfare; Keuka College, B.A., 1970; Rutgers University, M.S.W., 1971
- Derby, Michael** (1986) Assistant Professor of Biology; University of Maine, B.S., 1969; University of Oregon, Ph.D., 1977
- diBenedetto, Lucia A.** (1970) Associate Professor of French; Emmanuel College, B.A., 1963; Middlebury College, M.A., 1965; New York University, Ph.D., 1975
- Dietrich, Craig** (1968) Professor of History; University of Chicago, A.B., 1961; Ph.D., 1970
- Dorbacker, Beatrice M.** (1974) Associate Professor, School of Nursing; Columbia University, B.S., 1950; M.A., 1957; Boston University, Ed.D., 1973
- Dorsey, E Donald, Jr.** (1967) Assistant Professor of Biology; Bowdoin College, A.B., 1950; Syracuse University, M.S., 1960; Simmons College, M.S., 1964
- Dostie, Elizabeth M.** (1987) Staff Associate, Student Financial Aid; University of Southern Maine, B.S., 1987

- Downey, Loren W.** (1974) Director, University College of Education and Professor of Education; Drake University, B.A., 1949; University of Oregon, M.S., 1950; University of Arizona, Ed.D., 1966
- Downing, Thomas J.** (1978) Assistant Director, Lifeline; University of New Hampshire, B.S., 1973
- Drew, David** (1972) Instructor in Physical Education; Springfield College, B.S., 1967; M.Ed., 1971
- Drew, Judith C.** (1978) Associate Professor, School of Nursing; Northeastern University, B.S., 1972; Boston University, M.S., 1977
- Duclos, Gloria S.** (1962) Professor of Classics; Radcliffe College, A.B., 1949; M.A., 1953; Oxford University, B.A., 1951; M.A., 1955
- Durgin, Frank A., Jr.** (1964) Professor of Economics; Tufts University, B.A., 1949; University of Toulouse, France, License en Droit, 1954; Docteur en Droit, 1956
- Dushuttle, Patricia J.** (1985) Research Assistant, Human Services Development Institute, Public Policy and Management Program; University of Maine at Augusta, A.A., 1980; University of Southern Maine, B.A., 1985
- Duval, Marjorie A.** (1962) University Archivist and Reference Librarian; New England Conservatory of Music, B.Mus., 1945; Simmons College, M.S., 1962
- Eagan, Eileen M.** (1987) Assistant Professor of History; D'Youville College, B.A., 1968; University of Wisconsin, M.A., 1970; Temple University, Ph.D., 1979
- Eastman, Joel W.** (1970) Professor of History; University of Maine at Orono, B.A., 1962; M.A., 1965; University of Florida, Ph.D., 1973
- Elliott, Elizabeth K.** (1982) R.N. Studies Coordinator and Assistant Professor of Nursing; Barnard College, A.B., 1973; Columbia University, B.S., 1976; Simmons College, M.S., 1981
- Ellis, Edna** (1983) Admissions Coordinator and Instructor, School of Nursing; University of Southern Maine, B.S., 1972; Boston University, M.S.N., 1973
- El-Taha, Muhammad A.** (1987) Assistant Professor of Mathematics; Haigazian College, (Lebanon), B.S., 1978; American University of Beirut, M.S., 1980; North Carolina State University, Ph.D., 1986
- Engber, Micah** (1987) Associate Director of Residence Life; Ohio University, B.A., 1978; M.Ed., 1984
- Englund, Miriam** (1987) Youth Program Coordinator, Child Care Services, The College of Wooster, B.A.
- Erickson, Karen** (1984) Assistant Professor of Political Science; Stanford University, B.A., 1958; Harvard University, M.A., 1963; Ph.D., 1976
- Estes, Robert A., Sr.** (1966) Professor of Mathematics; Bowdoin College, A.B., 1958; University of Kansas, M.A., 1961; University of Michigan, Ph.D., 1970
- Evans, Lynn** (1983) Teacher, University Day Care Center; University of Illinois, B.A., 1970
- Faherty, Vincent E.** (1988) Professor of Social Work; St. Joseph's College and Seminary, B.A., 1960; Fordham University, M.S.W., 1970; University of Utah, D.S.W., 1976; University of Geneva, M.B.A., 1984
- Fahey, Margaret A.** (1983) Associate Director of Admissions; Boston College, A.B., 1975; Tufts University, M.Ed., 1981
- Faksh, Mahmud A.** (1987) Assistant Professor of Political Science; American University of Beirut, B.A., 1965; Oklahoma State University, M.A., 1967; University of Connecticut, Ph.D., 1973
- Farrar, John N.** (1966) Assistant Director/Coordinator Transfer Credit Counseling Services, Advising and Academic Information; University of Maine, B.A., 1951; M.Ed., 1958; C.A.S., 1962
- Faulkner, Howard M.** (1970) Associate Professor of Technology; Massachusetts State College of Fitchburg, B.S., 1957; Northeastern University, M.Ed., 1960
- Ferrari, Jennifer S.** (1985) Staff Associate, Student Financial Aid; University of Southern Maine, B.S., 1984
- Fifield, Gary B.** (1987) Lecturer in Physical Education, Men's Soccer Coach and Women's Basketball Coach; University of Vermont, B.S., 1974; M.Ed., 1983
- Findlay, Robert W.** (1967) Associate Dean and Professor of Accounting; School of Business, Economics and Management; Boston University, B.S., 1955; M.B.A., 1964; C.P.A. (Massachusetts and Maine)
- Fisher, Irving D.** (1967) Professor of Political Science; University of Connecticut, B.A., 1946; Columbia University, M.A., 1953; Ph.D., 1976
- Fithian, Bruce** (1984) Assistant Professor of Music; Southampton University (England), B.M., 1972; Brandeis University, M.E.A., 1975
- Fitzherbert, Casandra B.** (1984) Library Special Services Associate; University of Maine at Presque Isle, B.A., 1982
- Flagg, Robert C.** (1987) Assistant Professor of Mathematics, University of Maine, M.A., 1979; SUNY, Buffalo, M.A., 1982; Ph.D., 1984
- Flaherty, Edward J.** (1985) Lecturer in Physical Education, Women's Soccer Coach and Baseball Coach; University of Maine, B.S., 1976; University of Southern Maine, M.S., 1981
- Flanagan, Timothy J.** (1982) Associate Professor of Military Science; United States Military Academy at West Point, B.S., 1977
- Fleming, Leslie A.** (1987) Research Assistant I, Center for Housing and Land Use, School of Business, Economics and Management; University of Wisconsin, B.S., 1974; Ohio State University, M.A., 1980
- Folsom, Robert E.** (1968) Associate Professor and Director, Lifeline Adult Fitness Program; Springfield College, B.S., 1953; Boston University, Ed.M., 1962

- Fortinsky, Richard H.** (1984) Research and Advanced Study Associate, Human Services Development Institute, Public Policy and Management Program; Pennsylvania State University, B.A., 1975; Brown University, M.A., 1977; Ph.D., 1984"
- Foster, Carolyn N.** (1966) Associate Professor of Mathematics; Douglass College (Rutgers), A.B., 1958; Purdue University, M.S., 1961; Bowdoin College, A.M., 1966
- Foster, Cherie Major** (1982) Associate Professor of Education; University of Wyoming, B.A., 1973; M.A., 1977; Utah State University, Ed.D., 1983
- Foster, Frances** (1984) Professional Nurse, Student Health Center; Massachusetts General Hospital, R.N., 1952
- Fournier, Margaret A.** (1976) Associate Professor, School of Nursing; Fitchburg State College, B.S.N., 1972; Boston University, M.S.N., 1976
- Franklin, Patt R.** (1970) Professor of Art; Pratt Institute, B.F.A., 1962; Tulane University of Louisiana, M.F.A., 1970
- Freebury, Artha L.** (1986) Research Assistant, Human Services Development Institute, Public Policy and Management Program; Montana State University, B.S., 1970; University of Connecticut, M.S.W., 1972
- Freeman, Ardith** (1979) Lecturer in Music; Eastman School of Music, B.M., 1972; M.M., 1974
- French, Robert J.** (1969) Associate Professor of Geography and Director, Museum of Culture Change; Dartmouth College, A.B., 1957; Northeastern University, M.Ed., 1967; Clark University, M.A., 1972
- French, Thomas R.** (1987) Assistant Law Librarian for Public Service; SUNY, Oswego, B.A., 1971; SUNY, Geneseo, M.L.S., 1975; University of Cincinnati, M.A., 1978; Chase College of Law, Northern Kentucky University, J.D., 1987
- Fried, David J.** (1988) Visiting Associate Professor of Law; Cornell University, B.A., 1971; Harvard Law School, J.D., 1976
- Friedman, James M.** (1980) Professor of Law; Brown University, A.B., 1971; University of Chicago, J.D., 1974
- Fullam, David C.** (1970) Associate Professor of Sociology; Colby College, B.A., 1960; University of New Hampshire, M.A., 1965; M.A., 1969
- Gabrovsky, Peter N.** (1985) Associate Professor of Computer Science; Sofia University (Bulgaria), B.S., 1965; Warsaw University (Poland), M.S., 1968; Syracuse University, Ph.D., 1976
- Gainey, Louis F., Jr.** (1976) Associate Professor of Biology; Florida State University, B.S., 1969; M.S., 1972; Ph.D., 1976
- Gallant, Roy A.** (1980) Planetarium Director; Adjunct Professor of English; Bowdoin College, B.A., 1948; Columbia University, M.S., 1949
- Gauditz, Barbara E.** (1987) Assistant Dean, School of Law; Hunter College, B.A., 1972; University of Maine School of Law, J.D., 1987
- Gavin, William J.** (1968) Professor of Philosophy; Fordham University, B.A., 1965; M.A., 1967; Ph.D., 1970
- Gayton, William F.** (1974) Professor of Psychology; Springfield College, B.S., 1963; University of Maine, M.A., 1965; Ph.D., 1968
- Gianopoulos, Christine** (1978) Research and Advanced Study Associate, Human Services Development Institute, Public Policy and Management Program; University of Pittsburgh, B.A., 1968; Syracuse University, M.P.A., 1970
- Giguere, Madeleine D.** (1967) Professor of Sociology; College of New Rochelle, B.A., 1947; Fordham University, M.A., 1950; Columbia University, M.Phil., 1973
- Gilmore, Leigh** (1987) Assistant Professor of English; University of Washington, B.A., 1980; M.A., 1983; Ph.D., 1987
- Giroux, Gayle G.** (1980) Student Financial Aid Staff Associate; Kennebec Valley V.T.I., Associate, 1979
- Gish, Nancy K.** (1979) Professor of English; Western Michigan University, B.A., 1964; University of Michigan, M.A., 1965; Ph.D., 1973
- Glantz, Larry L.** (1986) Research Assistant, Human Services Development Institute, Public Policy and Management Program; Temple University, B.A., 1974; Bryn Mawr College, M.L.S.P., 1974; M.S.W., 1974
- Gleason, Thomas C.** (1986) Micro-Computer Operations Manager; Texas Tech University, B.F.A., 1981; University of Southern Maine, M.Ed., 1988
- Godfrey, Edward S.** (1962) Adjunct Professor of Law; Harvard College, A.B., 1934; Columbia Law School, J.D., 1939
- Goettel, Robert J.** (1981) Director, Office of Sponsored Research and Assistant to the President; State University, Fredonia, New York, B.A., 1955; Columbia University, M.A., 1963; Ed.D., 1970
- Gold, Joel I.** (1973) Associate Professor of Associate Business Administration; Pace University, B.B.A., 1968; Bernard Baruch College, M.B.A., 1972; University of Southern Maine, M.S., 1982
- Goldsberry, Lee** (1987) Assistant Professor of Education; Purdue University, B.A., 1969; Governors State University, M.A., 1975; University of Illinois, Ed.D., 1980
- Goldstein, Nance** (1987) Assistant Professor of Economics; Tufts University, B.A., 1972; University of London, M.Sc., 1979; Thames Polytechnic University, Ph.D., 1988
- Gomes, Ellen M.** (1986) Staff Associate, Financial Aid; Saint Martin's College, B.A., 1986
- Goodwin, J. Michael** (1987) Staff Associate, Financial Aid; University of Southern Maine, B.S., 1986

- Gould, Stephanie E.** (1984) Staff Associate, Financial Aid; University of Southern Maine, B.A., 1979
- Graham, Anita K.** (1966) Staff Associate for Business Services; University of Southern Maine, B.S., 1984
- Grange, Joseph** (1970) Professor of Philosophy; St. Joseph's College, B.A., 1961; Fordham University, M.A., 1965; Ph.D., 1970
- Grant, Bruce A., Cpt.** (1985) Assistant Professor of Military Science; University of Rhode Island, 1978
- Greene, Charles N.** (1986) Professor of Organizational Behavior and Management; Ohio State University, B.S., 1959; M.B.A., 1961; Ph.D., 1969
- Greene, Nathanael N.** (1980) Coordinator, Saco-Biddeford Center; University of Southern Maine, B.A., 1967; University of Washington, M.L.S., 1970
- Greenleaf, Nancy P.** (1982) Dean and Associate Professor, School of Nursing; Boston University, B.S., 1964; M.S., 1967; D.N.Sc., 1982
- Greenwood, Helen L.** (1969) Provost and Vice President for Academic Affairs and Associate Professor of Biology; Northeastern University, B.S., 1958; University of New Hampshire, M.S., 1960; University of Connecticut, Ph.D., 1969
- Gregory, David D.** (1972) Professor, School of Law; Duke University, B.A., 1964; University of Maine, LL.B., 1968; Harvard University, LL.M., 1972
- Grover, Richard A.** (1988) Assistant Professor of Business Administration; The University of Connecticut, B.S., 1976; The Ohio State University, M.S., 1980; Ph.D., 1984
- Grzelkowski, Slawomir A.** (1973) Associate Professor of Sociology; University of Warsaw (Poland), M.A., 1962; Indiana University, Ph.D., 1974
- Guay, Merle D.** (1969) Professor of Mathematics; Tufts University, B.S., 1958; University of Maine, M.A., 1960; Michigan State University, Ph.D., 1967
- Gupta, Bhisham C.** (1985) Professor of Applied Mathematics, Punjab University (India), M.A., 1964; University of Windsor (Canada), M.S., 1969; Ph.D., 1972
- Gupta, Sat** (1986) Assistant Professor of Mathematics, University of Delhi (India), B.A., 1970; M.S., 1972; Ph.D., 1977; Colorado State University, Ph.D., 1987;
- Gutmann, Jean E.** (1977) Associate Professor of Associate Business Administration; State University of New York at Albany, B.S., 1971; University of Maine at Orono, M.B.A., 1974
- Hackett, George E.** (1968) Assistant to the Provost, Central Michigan University, B.A., 1952; University of Michigan, M.A., 1957
- Hamilton, Michael S.** (1985) Assistant Professor of Political Science; Colorado State University, B.A., 1974; M.A., 1977; Ph.D., 1984
- Hamilton, Nathan D.** (1987) Assistant Professor of Archaeology; University of Southern Maine, B.A., 1977; University of Pittsburgh, Ph.D., 1985
- Hanisko, SandraLee M.** (1983) Assistant Professor of Communication; University of Wisconsin-Milwaukee, B.A., 1976; University of Nebraska-Lincoln, M.A., 1979; Ph.D., 1984
- Hartung, Catherine B.** (1987) Media Production Specialist; State University of Arts and Science at Geneseo, B.A., 1980
- Hatch, Dennis J.** (1979) Director, Bath-Brunswick Center; University of Maine, B.A., 1968
- Hathaway, Tania J.** (1986) Research Assistant, Human Services Development Institute, Public Policy and Management Program; University of Southern Maine, B.A., 1986
- Hank, Coin P.** (1983) Director of Police and Safety; Michigan State University, B.A., 1963
- Healy, Phyllis E.** (1980) Associate Professor, School of Nursing; Hunter College, B.S.N., 1971; University of California, M.S.N., 1972
- Hearns, Joseph E.** (1970) Associate Professor of Psychology; Boston College, B.S., 1964; University of Massachusetts, M.S., 1966; Ph.D., 1967
- Heath, John R.** (1976) Associate Professor of Computer Science; University of Maine at Orono, B.A., 1968; M.A., 1970; University of Minnesota, M.S., 1976; Ph.D., 1982
- Helms, Carl H.** (1979) Software Support Specialist, Academic Computing Services; Pacific Lutheran University, B.S., 1962; Washington State University, M.A., 1964
- Hendry, Caroline L.** (1974) Program/Production Coordinator; USM Television; University of Southern Maine, B.A., 1983
- Hewitt, Duncan A.** (1976) Associate Professor of Art; Colby College, B.A., 1971; University of Pennsylvania, M.F.A., 1975
- Hiebert, Maryanne T.** (1970) Professional Nurse; Massachusetts General Hospital, R.N., 1955; Simmons College, B.S., 1956; Boston University, M.S., 1985
- Higgins, Anita** (1972) Information Systems Coordinator, Management Information Systems
- Higgins, George M.** (1971) Director, Business Management Systems; University of Maine in Portland, B.S., 1971
- Higgins, Michael** (1983) Coordinator, C.A.S. Advising Center, Academic Counselor; University of Southern Maine, B.A., 1985
- Hill, Carl N.** (1987) Student Discipline Officer; University of Maine, B.S., 1966; M.Ed., 1971
- Hill, Hugh E.** (1987) Reference/Documents Law Librarian; SUNY Albany, B.A., 1979; M.L.S., 1986; Boston University, J.D., 1983
- Hillard, Michael** (1987) Assistant Professor of Economics; University of Massachusetts, B.A., 1980; Ph.D., 1988
- Hird, Robert H.** (1986) Acting Director, Research and Advanced Study Associate, Small Business Development Center, School of Business, Economics and Management; St. Francis College, B.S., 1976

- Hodgdon, Paula D.** (1967) Professor of Physical Education and Coordinator of Physical Education; Lasell Junior College, A.A., 1948; Beaver College, B.A., 1950; Columbia University, M.A., 1952; Springfield College, D.P.E., 1973
- Hodges, Franklin D.** (1966) Associate Professor of Geography; Farmington State College, B.A., 1961; Clark University, M.A., 1966
- Hodgkin, Brian C.** (1976) Dean, School of Applied Science and Coordinator, Engineering Program and Associate Professor of Electrical Engineering; University of Maine, B.S., 1963; B.S., 1964; Johns Hopkins University, Ph.D., 1969
- Hodson, D. Bradlee** (1973) Associate Professor of Accounting and Research Associate, New Enterprise Institute, Center for Business and Economic Research, School of Business, Economics and Management; University of Maine at Orono, B.S., 1968; University of Pennsylvania, M.A., 1969; C.P.A. (Massachusetts)
- Holden, Christine** (1984) Assistant Professor of History; Swarthmore College, B.A., 1965; University of Illinois-Urbana, M.A., 1966; Ph.D., 1976
- Holman, Carolyn L.** (1986) Assistant Professor, Department of Professional Education-Undergraduate, College of Education; Ohio State University, B.S., 1961; M.A., 1969
- Holmes, Peter K.** (1968) Associate Professor of Biology; Bowdoin College, A.B., 1956; Wesleyan University, M.A., 1958; University of Illinois, Ph.D., 1964
- Honey, Irene** (1987) Assistant to the Dean, College of Education; Georgetown University, B.S., 1969; Syracuse University, M.S., 1971
- Honey, Stephen T.** (1987) Vice President for Development and External Affairs; Cornell University, B.A., 1968; Georgetown University, M.A., 1975
- Hornby, Helaine** (1974) Research and Advanced Study Associate, Human Services Development Institute, Public Policy and Management Program; Simmons College, B.S., 1968
- Houlihan, John J.** (1975) Associate Professor of Business Law; Holy Cross College, A.B., 1969; Harvard Law School, J.D., 1972
- Howard, Albert A.** (1970) Head of Cataloging Services; Brown University, A.B., 1951; University of Kentucky, M.L.S., 1955
- Howe, Elaine** (1978) Placement Specialist, College of Education
- Hughes, Carolyn C.** (1968) Head of Serial Services; University of Maine, B.A., 1968; M.L.S., 1974
- Hunt, H. Draper III** (1965) Professor of History; Harvard University, B.A., 1957; Columbia University, M.A., 1960; Ph.D., 1968
- Hutchinson, Kathryn M.** (1986) Coordinator of Career Development Services; Acadia University, B.A., 1975; University of Maine, M.Ed., 1983
- Hymoff, Ira H.** (1972) Director of Counseling and Career Development; Colby College, B.A., 1965; University of Maine, at Orono, Ph.D., 1970
- Irish, Joel W.** (1971) Associate Professor of Mathematics; Colby College, B.A., 1967; University of New Hampshire, M.S., 1969; Ph.D., 1975
- Ison, Catherine** (1986) Instructor of Nursing; University of Oregon, School of Nursing, B.S.N., 1972; University of Southern Maine, M.S.N., 1985
- Jackson, William** (1978) Academic Counselor; University of Connecticut, B.A., 1975; University of Southern Maine, M.S., 1982
- Jagolinzer, Philip** (1966) Professor of Accounting; Clark University, A.B., 1958; University of Rhode Island, M.S., 1960; University of Arizona, Ph.D., 1978; C.P.A. (Maine, Maryland)
- Jaques, John F.** (1946) Professor of English; Bowdoin College, A.B., 1943; Columbia University, A.M., 1946; Ph.D., 1971
- Jensen, Helena M.** (1967) Associate Professor, School of Nursing; University of Maine, B.S., 1943; Pennsylvania State University, M.Ed., 1951
- Johnson, Rosemary** (1987) Assistant Professor, School of Nursing; McGill University, B.S.N., 1972; University of Rochester, M.S.N., 1976; University of Colorado, Ph.D., 1987
- Johnson, Sheila A.** (1968) Head of Reference Services; Boston College, B.S., 1967; University of Maine, M.L.S., 1975
- Jones, Susan** (1986) Program Specialist and Acting Associate Director, Center for Real Estate Education, School of Business, Economics and Management; Bradford College, A.A., 1960
- Jordan, Percival L.** (1980) Lifeline Exercise Specialist; ACSM Exercise Technician Certification, 1980 (Dallas, Texas); Advanced Physical Fitness Specialist, 1979; ALS Certification, 1980
- Kading, Charles S.** (1978) Associate Professor of Theatre; California State University, B.A., 1973; University of Washington, M.A., 1975; California State University-Fullerton, M.F.A., 1982
- Kandoian, Ellen Arpen** (1981) Professor of Law and Legal Studies; Yale College, B.A., 1971; Columbia University, M.A., 1972; Yale Law School, J.D., 1975; Boston University, L.L.M., 1981
- Kane, Katharine** (1985) Academic Counselor, Sanford Center; Trinity College, B.A., 1968; University of Southern Maine, M.Ed., 1977
- Kane-Breton, Marilyn** (1987) Coordinator of Substance Abuse Prevention Program, Counseling and Career Development; Southern Connecticut State University, B.S., 1981; University of New Hampshire, M.Ed., 1987
- Karpeles, Kathy** (1980) Counseling Psychologist; SUNY at Brockport, B.A., 1971; University of Southern California, Ed.D., 1977
- Karraker, David** (1985) Research Associate, Human Services Development Institute, Public Policy and Management Program; University of Wisconsin, B.S., 1961

- Kecskemethy, Stephen** (1978) Artist in Residence, Music; Eastman School of Music, B.M., and Performer's Certificate, 1966
- Keller, Carolyn** (1986) Rehabilitation Consultant, Division of Human Resources; Illinois State University, B.A., 1972; M.S., 1978
- Kellogg, Edward Zip** (1985) Reference Librarian; Gettysburg College, B.A., 1979; Southern Connecticut State University, M.L.S., 1980
- Kennedy, Harris W.** (1985) Reference Librarian; Gordon College, B.A., 1963; Boston University, M.A., 1966; Columbia University, M.L.S., 1971
- Kenyon, James** (1987) Assistant Professor of Mathematics; Bates College, B.S., 1974; University of Connecticut, M.S., 1976; Ph.D., 1987
- Kerrigan, Jean F.** (1977) Academic Counselor; University of Southern Maine, B.A., 1977; M.S.Ed., 1988
- Ketcham, Judy** (1985) Assistant Professor of Accounting; University of Vermont, B.S., 1978; University of New Hampshire, M.B.A., 1982; CPA (Maine)
- Keyser, John F.** (1974) Registrar; University of Wisconsin, B.S., 1962; M.S., 1966
- Khoury, Colleen** (1985) Visiting Associate Professor of Law; Colby College, B.A., 1964; Illinois Institute of Technology/Chicago-Kent College of Law, J.D., 1975
- Kilbreth, Elizabeth H.** (1984) Research and Advanced Study Associate, Human Services Development Institute, Public Policy and Management Program; Radcliffe College, B.A., 1973; Johns Hopkins University, M.H.S., 1979
- King, Susan A.G.** (1984) Testing and Assessment Specialist, Office of Student Testing and Assessment; University of Southern Maine, B.A., 1984
- Kinne, Christenia A.** (1987) Wardrobe Manager, Theatre; Whitman College, B.A., 1972
- Kinsella, John M.** (1987) Assistant Professor of Spanish and Portuguese; University of Birmingham, B.A., 1971; University of Liverpool, Ph.D., 1975
- Kirk, Albert S. III** (1977) Associate Professor of Technology; Florida College, A.A., 1961; University of Tampa, B.S., 1963; Northern Illinois University, M.S., 1967; Murray State University, S.C.T., 1980
- Kivatsky, Russell J.** (1974) Assistant Professor of Communication; State University of New York, Brockport, B.S., 1970; M.A., 1971; Bowling Green State University, Ph.D., 1974
- Knowlton, Gayle K.** (1981) Assistant to the Dean, School of Law; Eastern Nazarene College, A.B., 1964
- Knowlton, Suzanne L.** (1968) Associate University Librarian; University of Kansas, B.A., 1960; University of Denver, M.A., 1963
- Knudsen, David W.** (1988) Associate Professor of Electrical Engineering; University of Maine, B.S., 1951; University of New Hampshire, M.S., 1965; Rensselaer Polytechnic Institute, Dr.Eng., 1972
- Kohaut, Susan M.** (1986) Clinical Psychologist, Counseling and Career Development; University of Southern Maine, B.A., 1977; Bowling Green State University, Ph.D., 1984
- Koss, Kari L.** (1987) Research Assistant III, Human Services Development Institute, Public Policy and Management Program; College of the Atlantic, B.A., 1982
- Kramer, John D.** (1986) Coordinator for Photography and Design; Middlebury College, B.A., 1976
- Kratzer, Richard O.** (1971) Professor of Mathematics; Fort Hays Kansas State College, B.A., 1957; Kansas State College of Pittsburg, M.A., 1964; New York University, Ph.D., 1971
- Kreamer, Kristen M.** (1987) Assistant Professor of Nursing; Colby College, B.A., 1969; Owens Technical College, A.D., 1974; Yale University, M.S., 1982
- Krenzlin, Kenneth T.** (1988) Assistant Professor of Business Administration; San Francisco State University, B.A., 1983; B.S., 1983; Stanford University, M.S., 1987; Ph.D., 1988
- Krichels, Deborah** (1986) Acting Director of Development; University of Wisconsin, B.A., 1970; University of Maine, M.A., 1986
- Kucinski, John** (1987) Instructor of Mathematics; Brown University, M.A.T., 1971; Harvard University, M.Div., 1978
- Kucsma, Michael C.** (1987) Assistant Professor of Associate Business Administration; Emory and Henry College, B.A., 1968; University of Virginia, M.S.Ed., 1973
- Kulawiec, Edwin P.** (1987) Associate Professor, Department of Education-Graduate, College of Education; Bethany College, B.S., 1950; Seton Hall University, M.A., 1956; Indiana University-Bloomington, M.A.T., 1961; University of Wisconsin-Madison, Ph.D., 1970
- Lacognata, Angelo A.** (1965) Professor of Sociology; University of Buffalo, B.A., 1957; University of Rochester, M.A., 1959; Michigan State University, Ph.D., 1962
- Laffin, Catherine A.** (1962) Director of Administrative Services
- Lake, Francis A.** (1986) Computer Programmer, Management Information Systems; University of Southern Maine, B.A., 1986
- Lambert, David** (1986) Research and Advanced Study Associate, Human Services Development Institute, Public Policy and Management Program; Tulane University, B.A., 1972; Indiana University, M.A., 1974; Brandeis University, Ph.D., 1986
- Lamont, Valarie C.** (1987) Director, Center for Real Estate Education and Center for Affordable Housing and Land Use Studies, School of Business, Economics and Management; University of Maine, B.A., 1968; University of Illinois, M.A., 1969; Ph.D., 1974
- Lamontagne, Carol** (1984) Staff Associate, Professional Development Center, College of Education

- Lang, Michael** (1983) Professor, School of Law; Harvard University, A.B., 1972; University of Pennsylvania, J.D., 1975
- Lanier, Ronald** (1978) Artist in Residence, Music; Indiana University, B.M., 1967; Julliard School of Music, Graduate Studies, 1968
- LaPlante, Josephine M.** (1985) Assistant Professor of Public Policy and Management; Syracuse University, B.A., 1973; M.A., 1983; Ph.D., 1984
- Lariviere, Raymond** (1985) Project Coordinator, Certified Electrical Technician, Facilities Management
- LaSala, Gerald J., Jr.** (1987) Assistant Professor of Physics; Yale University, B.A., 1970; Rutgers University, M.S., 1978; Dartmouth College, Ph.D., 1983
- Lasky, Kathryn** (1987) Assistant Professor of Communication; Murray State University, B.S., 1974; M.A., 1977
- Law, Eleanor W.** (1980) Volunteer Assistant to the Executive Director for Human Resources; Simmons College, B.A., 1950
- Lazar, Bonnie** (1975) Associate Professor of Social Welfare; State University of New York at Buffalo, B.A., 1970; Boston University, M.S.S.S., 1972
- LeBel, Kathleen S.** (1986) Director of Conferences; State University of New York at Plattsburgh, B.A., 1981
- Leh-Douglas, Sharyn** (1983) Academic Counselor and Coordinator of Handicapped Student Services; Lake Erie College, B.A., 1969; University of New Hampshire, M.Ed., 1974; C.A.S., 1979; University of Maine, Ed.D., 1986
- Lehane, Stephen** (1984) Director, Child Care Services; St. Anselm College, B.A., 1965; University of New Hampshire, M.A.T., 1967; Columbia University, Ed.D., 1973
- Lehman, Peter M.** (1974) Associate Professor of Sociology; Oberlin College, A.B., 1968; Meadville Theological School, University of Chicago, M.A., 1970; University of Massachusetts, Ph.D., 1978
- Lemelin, Robert** (1977) Director, Learning Assistance Systems; Southern Connecticut State University, B.S., 1959; University of Maryland, M.A., 1963; Ph.D., 1967
- Lepelley, Edith** (1965) Associate Professor of French; Lycée de Jeunes Filles de Chartres, Baccalaureate, 1950; University of Rennes (France), License ès Lettres, 1956
- Levere, Ronald W.** (1976) Director, Educational Media Services; State University of New York, B.S., 1965; University of Connecticut, M.A., 1976
- Levesque, Marc A.** (1986) Program Specialist, Department of Community Programs; Boston College, B.A. 1970
- Levine, Frank M.** (1975) Coordinator, Organized Camping Resources, Office of Sponsored Research; Cambridge College, A.A., 1950
- Lewis, Sandra M.** (1983) Director of Student Billing; University of Southern Maine, B.S., 1978; M.S., 1980
- Lewis, Virginia M.** (1953) Graduate Education Specialist, College of Education; Maine School of Commerce, 1940
- Libby, Philip C.** (1961) Coordinator of Property Management
- Lieberman, Alice A.** (1982) Associate Professor of Social Welfare; Research Associate, Human Services Development Institute, Public Policy and Management Program; University of Texas at Austin, B.A., 1974; University of Texas at Arlington, M.S.W., 1976; University of Wisconsin, Ph.D., 1983
- Locke, Phyllis R.** (1968) Serials Reference Librarian; University of Toronto, B.A., 1951; University of Maine, M.L.S., 1968
- Lockridge, Rebecca B.** (1984) Assistant Professor of Communication; Indiana University, A.B., 1960; Connecticut State College, Certificate, 1962; Ohio State University, M.A., 1983
- Lombardo, Gary A.** (1987) Assistant Professor of Business Administration; New Hampshire College, B.S. 1976; University of Southern California, M.S., 1980; University of Oregon, Ph.D., 1986
- Loper, Merle W.** (1971) Professor, School of Law; Northwestern University, B.A., 1962; University of Chicago, J.D., 1965
- Louden, Robert B.** (1982) Associate Professor of Philosophy; University of California at Santa Cruz, B.A., 1975; University of Chicago, M.A., 1976; Ph.D., 1981
- Lumbert, Lanier D.** (1978) Head of Circulation Services; University of Maine at Orono, B.A., 1971; University of Denver, M.A., 1974
- Lyons, Charles M.** (1973) Interim Director, Health Professions Education/Associate Professor of Education; St. Francis Xavier University, B.A., 1966; University of Hartford, M.Ed., 1970; Boston University, Ed.D., 1978
- Lyons, George C.** (1984) Director, Professional Development Center, College of Education; St. Francis Xavier University, B.A., 1955; University of Maine, Portland, M.Ed., 1968
- MacDonald, Stephen A.** (1970) Associate Professor of Mathematics; Gorham State College, B.S., 1963; University of Maine, M.A., 1964; Case Western Reserve University, Ph.D., 1972
- MacDonald, Thomas** (1984) Assistant Professor of Associate Business Administration, University of Southern Maine, B.A., 1973; M.S., 1979; B.A. (computer science), 1981
- MacLeod, Bruce** (1986) Instructor of Computer Science; Bowdoin College, A.B., 1979; Rensselaer Polytechnic Institute, M.S., 1981; University of Massachusetts, M.S., 1985; Ph.D. Candidate, 1986
- MacPherson, Kathleen I.** (1974) Associate Dean and Professor; School of Nursing; Boston University, B.S., 1963; M.A., 1965; M.S., 1974, Brandeis University, Ph.D., 1986
- Maiman, Richard J.** (1971) Professor of Political Science; Lake Forest College, B.A., 1967; Brown University, Ph.D., 1972
- Mainville, Waldeck E., Jr.** (1965) Professor of Mathematics; University of Maine, B.S., 1960;

- Bowdoin College, A.M., 1964; Bowling Green State University, Sp.Ed., 1965; Michigan State University, Ph.D., 1972
- Manny, Carter** (1986) Assistant Professor of Business Law; Harvard, A.B., 1971; Boston University, J.D., 1975
- Marasco, Rose** (1986) Assistant Professor of Art; Syracuse University, B.F.A., 1971; Goddard College, M.A., 1981
- Martin, Joyce** (1980) Assistant Director, Professional Development Center, College of Education; Simmons College, B.A., 1965; New York University, M.A., 1973
- Martin, Peter J.** (1980) Associate Professor of Music; Northern Illinois University, B.A., 1971; Wichita State University, M.M.E., 1973; Northwestern University, Ph.D., 1983
- Martin, Thomas A.** (1965) Assistant Professor of Physical Education and Recreation, Director of Intramurals; University of Maine, B.S., 1963; M.Ed., 1969
- Mason, Edith C.** (1974) Professional Nurse, Student Health Center; Maine Medical Center, R.N., 1954
- Mason, Marthina S.** (1978) Staff Associate, Financial Aid
- Masure, Lorraine D.** (1973) Director, Sanford Center, Nasson College, B.A., 1970; University of Southern Maine, M.S., 1976
- Mazurkiewicz, Michael, Jr.** (1969) Professor of Biology; Rutgers University, B.S., 1961; M.S., 1964; University of Connecticut, Ph.D., 1970
- McCrillis, George** (1980) Exercise Instructor, Lifeline Adult Fitness Program
- McCullough, William T.** (1983) Associate Professor, Therapeutic Recreation; Southern Connecticut State College, B.S., 1971; M.S., 1977; Boston University, Ed.D., 1986
- McDonald, Thomas P.** (1983) Research and Advanced Study Associate, Human Services Development Institute, Public Policy and Management Program; Bucknell University, B.S., 1971; University of Pennsylvania, M.S.W., 1973; University of Wisconsin-Madison, Ph.D., 1977
- McDonnell, Polina C.** (1976) Research Assistant, Human Services Development Institute, Public Policy and Management Program; University of Maine at Portland-Gorham, B.A., 1972
- McDuffie, Bruce** (1987) Case Consultant, Division of Human Resources; University of Maine, B.A., 1960; Case-Western Reserve University, M.S., 1969
- McGrath, Barbara** (1986) Instructor of English; Illinois Wesleyan University, B.A., 1967
- McGrath, Francis C. III** (1985) Associate Professor of English; Dartmouth College, B.A., 1964; University of Texas at Austin, Ph.D., 1973
- McGuire, Catherine A.** (1984) Research Assistant, Human Services Development Institute, Public Policy and Management Program; University of Southern Maine, B.A., 1983
- McKeil, Richard L.** (1966) Professor of Associate Business and Economics; University of Maine, B.A., 1959; M.A., 1965
- McMahon, Robert C.** (1969) Associate Professor of Economics; University of Washington, B.A., 1959; M.A., 1964; Lehigh University, Ph.D., 1970
- McMullen, Faith** (1979) Coordinating Manager, Child Care Services, University of Maine at Orono, B.S., 1968
- Medley, Joseph E.** (1983) Assistant Professor of Economics; State University of New York-Albany, B.A., 1973; University of Massachusetts, Amherst, M.A., 1976; Ph.D., 1981
- Medici, Angelo** (1983) Instructor in Math; Boston College, B.S., B.A., 1950; Bridgewater State College, M.Ed., 1961; Clarkson College, M.S., 1969
- Merrow, Nancy A.** (1987) Instructor of Mathematics, University of Southern Maine, B.A., 1981
- Messerschmidt, James** (1986) Associate Professor of Sociology; Portland State University, B.S., 1973; San Diego State University, M.S., 1976; University of Stockholm (Sweden), Ph.D., 1979
- Meisner, Roberta** (1985) Legal Reference Librarian; Colby College, B.A., 1982; Simmons College, M.S., 1985
- Meyer, Linda** (1980) Associate Professor, Therapeutic Recreation Programs; Bridgewater State College, B.S., 1969; University of Connecticut, M.A., 1973; Ph.D., 1976
- Miaoulis, George** (1983) Professor of Marketing; New York University, B.S., 1965; M.B.A., 1969; Ph.D., 1974
- Milbury, Allen W.** (1963) Associate Professor of Education; University of New Hampshire, B.S., 1960; Indiana University, M.S., 1963; Ed.D., 1969
- Miller, Lynne** (1987) Associate Professor of Educational Administration/Instructional Leadership; University of Pennsylvania, B.A., 1967; Harvard University, M.A.T., 1970; University of Massachusetts, Ed.D., 1975
- Milligan, Patricia M.** (1975) Senior Law Cataloger, School of Law Library; Ohio State University, B.A., 1971
- Monsen, S. Henry** (1969) Professor of Sociology; Florida State University, B.A., 1957; University of California, Los Angeles, M.A., 1959; University of Texas, Ph.D., 1967
- Moore, Dorothy D.** (1968) Dean and Associate Professor, College of Education; University of Maine, B.S., 1966; M.Ed., 1968; Ed.D., 1978
- Moore, Edward T.** (1980) Library Circulation Associate, University Library; St. Anselm College, B.A., 1974
- Moore, Jo-Anna J.** (1983) Assistant Professor of Art Education; Syracuse University, B.F.A., 1965; Massachusetts College of Art, M.S., 1980
- Moore, Michael G.** (1967) Associate Professor of Art; Syracuse University, B.F.A., 1963; University of Washington, M.F.A., 1967
- Moore, Ramona L.** (1972) Serials Law Librarian, School of Law

- Moore, William H.** (1971) Associate Professor of Technology; Gorham State College, B.S., 1969; University of Maine at Portland-Gorham, M.Ed., 1970; University of Tennessee, D.Ed., 1979
- Morrill, David** (1970) Associate Professor of Education; Moorehead State College, B.S., 1967; Texas A & M University, M.Ed., 1968; Ed.D., 1970
- Mosher, Martha** (1984) Assistant Manager, Portland Bookstore
- Mortensen, William G.** (1965) Director of Public Service; University of Maine, B.S., 1961; M.S., 1966
- Most, Ivan G.** (1988) Director, Production Technology Center; University of Massachusetts, B.S.M.E., 1964; Rensselaer Polytechnic Institute, M.S.M.E., 1967
- Mullane, Michael W.** (1987) Associate Professor of Law; University of Notre Dame, B.A., 1964; Notre Dame Law School, J.D., 1972
- Murphy, Julien** (1984) Assistant Professor, Philosophy Department; Northern Illinois University, B.A., 1977; DePaul University, M.A., 1980; Ph.D., 1982
- Myers, Anne** (1987) Assistant Law Librarian for Technical Services; Vanderbilt University, B.A., 1976; University of Texas at Austin, M.L.S., 1977
- Nadel, Judith L.J.** (1986) Assistant Director, Office of Student Testing and Assessment; University of Maine, B.A., 1982; University of Southern Maine, M.S., 1986
- Najarian, Haig H.** (1966) Professor of Biology; University of Massachusetts, B.S., 1948; Boston University, M.A., 1949; University of Michigan, Ph.D., 1953
- Najemy, Jeanne** (1985) Coordinating Manager, Child Care Services; Clark University, B.A., 1968; Lesley College, M.Ed., 1981
- Nannay, Robert W.** (1972) Associate Professor of Industrial Education and Technology; Trenton State College, B.A., 1964; M.A., 1967; University of Maryland, Ed.D., 1970
- Narang, Kamal** (1987) Assistant Professor of Mathematics, University of Allahbad (India), B.S., 1968; M.S., 1970; Indian Institute of Technology, M.S., 1973; The Ohio State University, Ph.D., 1985
- Nealand, Sallie C.** (1980) Assistant Professor, School of Nursing; Mt. Holyoke College, A.B., 1961; University of Delaware, B.S.N., 1973; University of Pennsylvania, M.S.N., 1979
- Nelson, Gordon E., Jr.** (1981) Assistant Director, Facilities Management; Brown University, B.A., 1975
- Neuberger, Harold T.** (1957) Professor of Science Education; Iowa-Wesleyan College, B.S., 1952; University of New Mexico, M.S., 1953; Boston University, Ed.D., 1964
- Neuwirth, Victor J.** (1987) Laboratory Associate, Chemistry; State University of New York, Stony Brook, B.S., 1963; State University of New York, New Paltz, M.S., 1968
- Neveu, Raymond P.** (1982) Professor of Finance; Providence College, A.B., 1959; Boston College, M.A., 1961; University of Pittsburgh, Ph.D., 1968
- Newell, Ahna H.** (1969) Assistant to the Director, Child and Family Institute; University of Southern Maine, B.A., 1986
- Newton, Thomas A.** (1987) Assistant Professor of Chemistry; Hobart College, B.S., 1965; Bucknell University, M.S., 1968; University of Delaware, Ph.D., 1973
- Ng, Ah-kau** (1988) Assistant Professor of Applied Immunology; National Chung-Hsing University, Taiwan, B.S., 1969; SUNY at Plattsburgh, M.A., 1972; Temple University School of Medicine, Ph.D., 1975
- Nickerson, Merton A.** (1986) Director of Academic Computer Services; University of Maine at Orono, B.S., 1963; University of Northern Iowa, M.S., 1968; University of Maine at Orono, Ph.D., 1976
- Normandeau, Jeanne G.** (1968) Associate Professor, School of Nursing; Boston College, B.S., 1964; M.S., 1967
- Novak, Irwin D.** (1971) Associate Professor of Geology; Hunter College, A.B., 1966; University of Florida, M.S., 1968; Cornell University, Ph.D., 1971
- O'Brien, Alyce S.** (1982) Executive Director for University Relations; Wilmington College, B.A., 1965; Ohio University, M.A., 1967
- O'Connor, Terrence P.** (1988) Assistant Professor of Technology; Northern Arizona University, B.S., 1980; West Texas State University, M.S., 1985
- O'Donnell, Michael P.** (1970) Professor of Education; University of Maine, B.S., 1958; M.S., 1961; Syracuse University, Ed.D., 1968
- O'Mahoney-Damon, Patricia M.** (1977) Associate Professor of Biology; Long Island University, B.S., 1971; State University of New York at Buffalo, M.A., 1974; Ph.D., 1977
- Osier, Donald T.** (1982) Counselor and Coordinator of Student Services; Bath-Brunswick Center; Bates College, B.S., 1973; Michigan State University, M.A., 1976
- Padula, Alfred L.** (1972) Associate Professor of History; College of the Holy Cross, B.S., 1957; University of the Americas (Mexico City), M.A., 1961; University of New Mexico, Ph.D., 1975
- Painter, Linda C.** (1987) Assistant Professor of Rehabilitation Education, Human Resource Development; West Georgia College, A.B., 1972; M.Ed., 1974; University of Georgia, Ph.D., 1984
- Pahnacci, Viola** (1966) Coordinator, Portland Student Health Center/Family Nurse Practitioner; Maine Eye and Ear Infirmary, R.N., 1944; University of Southern Maine, F.N.P., 1972
- Palmer, Margaret** (1983) Assistant to the Dean, School of Business, Economics and Management; Shippensburg University, B.S., 1970; Goddard College, M.A., 1980

- Palmer, Martha L.** (1987) Research Assistant I, Human Services Development Institute, Public Policy and Management Program; University of Southern Maine, B.S., 1985; Boston University, M.S.W., 1987
- Paltrow, Merle H.** (1987) Associate Professor, School of Nursing; University of Oregon, B.S.N., 1966; Lewis and Clark College, M.Ed., 1975; Columbia University, Ed.D., 1983
- Paradise, Noel E.** (1967) Professor of Psychology; University of Maryland, A.B., 1948; University of Michigan, Ph.D., 1960
- Parchman, Thomas** (1984) Assistant Professor of Music; Southern Methodist University, B.M., 1976; Northwestern University, M.M., 1978
- Parent, Suzanne P.** (1975) Acquisitions and Accounts Law Librarian; University of Maine at Portland-Gorham, B.A., 1975
- Parker, Helen EM.** (1974) Director, Student Financial Aid; University of Maine at Portland-Gorham, B.A., 1973
- Parker, Janet M.** (1985) Coordinator for Telecommunications; University of Southern Maine, B.A., 1980
- Parker, Kevin S.** (1984) Associate Professor of Military Science; Norwich University, B.S., 1978
- Parks, George R.** (1985) University Librarian; University of New Hampshire, A.B., 1959; University of Michigan, M.L.S., 1962
- Parsons, Gregory L.** (1983) Assistant Professor of Business Administration; University of Minnesota, B.S., 1974; Purdue University, Ph.D., 1980
- Parsons, Henry L.** (1983) Assistant Professor of Production/Operations Management; Michigan State University, B.S., 1960; University of Oregon, M.S., 1968; Ph.D., 1974
- Partridge, Susan E.** (1985) Consultant/Infant Telecourse Project Coordinator, Human Services Development Institute, Public Policy and Management Program; University of Michigan, B.A., 1971; M.S.W., 1974; M.A., 1976; Ph.D., 1980
- Passerman, Toni L.** (1984) Academic Counselor, Saco-Biddeford Center; Faculty Liaison, Off-Campus Instruction and Academic Support; University of New Hampshire, B.S., 1981; University of Southern Maine, M.S.Ed., 1984
- Peake-Godin, Helen** (1980) Associate Professor, School of Nursing; Spalding College, B.S., 1969; Emory University, M.N., 1979
- Pendleton, James W.** (1967) Associate Professor of Physical Science; Keene State College, B.Ed., 1959; Oregon State University, M.S., 1963
- Pennell, Beth-Ellen** (1987) Research Assistant, Human Services Development Institute, Public Policy and Management Program; University of Maine at Orono, B.A., 1978
- Perry, Caryn** (1983) Assistant Professor of Nursing; University of Maine at Portland-Gorham, B.S., 1978; University of Virginia, M.S., 1983
- Perry, Judith** (1986) Occupational Health and Safety Consultant/Coordinator, Division of Human Resources; Maine Medical Center School of Nursing, R.N., 1959; University of Southern Maine, B.S., 1981; M.S.Ed., 1987
- Persons, Alice** (1988) Research Assistant, Center for Business and Economic Research; School of Business, Economics and Management; University of Oregon, B.A., 1973; M.A., 1976; University of Maine, J.D., 1986
- Peters, Gerald** (1987) Assistant Professor of English; University of Saskatchewan, B.A., 1975; M.A., 1982; University of Illinois, Ph.D., 1986
- Petrucelli, Gerald E.** (1970) Adjunct Professor of Law; Boston College, A.B., 1964; Boston College Law School, L.L.B., 1967
- Phillips, William A.** (1980) Associate Professor of Economics; Florida State University, B.S., 1961; M.S., 1975; Ph.D., 1979
- Picinic, Susan E.** (1987) Assistant Professor of Theatre; State University of New York, Albany, B.A., 1978, M.A., 1980; The University of Michigan, M.F.A., 1985
- Plante, Patricia R.** (1987) President; Professor of English; St. Joseph's College, B.A., 1955; St. Michael's College, M.A., 1958; Boston University, Ph.D., 1962; University of Paris (Sorbonne), Post Doctoral Studies, 1976
- Pollock, Stephen G.** (1979) Associate Professor of Geology; Bucknell University, A.B., 1968; University of Maine, M.S., 1972; Rutgers University, Ph.D., 1975
- Potter, Judy R.** (1972) Professor, School of Law and Director, Clinical Practice Program; Cornell University, B.A., 1960; University of Michigan Law School, J.D., 1967
- Potts, Andrew J.** (1985) Professor of Accounting; George Washington University, A.B., 1960; M.B.A., 1962; Ed.D., 1977; C.P.A., (Virginia, District of Columbia); C.C.A., (District of Columbia)
- Power, Thomas A.** (1966) Associate Professor of Theatre; University of Maine, B.S., 1964; M.A., 1968
- Powers, Kathleen** (1977) Research Assistant, Human Service Development Institute, Public Policy and Management Program; University of Maine, B.A., 1969
- Pranger, Eugene B.** (1973) Assistant Director for Management and Finance, Office of Sponsored Research; Indiana University, B.S., 1971
- Purdy, Warren** (1980) Associate Professor of Associate Business Administration; Bethany College, B.A., 1970; Fordham University, M.B.A., 1974
- Quinn, Cynthia** (1976) Manager, USM Bookstores; University of Maine, B.S., 1975
- Quintrell, Ella J.** (1985) Research Assistant, Marine Law Institute, School of Law; Colby College, B.A., 1980
- Rakovan, Lawrence E.** (1967) Associate Professor of Art; Wayne State University, B.S., 1967; Rhode Island School of Design, M.A., 1969
- Rand, Steven** (1972) Associate Registrar; University of Maine at Presque Isle, B.S., 1970

- Redonnett, Rosa S.** (1987) Acting Director of Summer Session; Simmons College, B.A., 1980; Northeastern University, M.B.A., 1982
- Rees, Toni** (1984) Assistant Professor of Hearing Impairment; Teaching Certificate, Norwich College of Education (England), 1967; Southampton University, M.A., 1971; Gallaudet College, Ph.D., 1983
- Reeves, Scott D.** (1988) Assistant Professor of Music; Indiana University, B.M., 1972, M.M., 1982
- Reitman, Eloise V.** (1982) Coordinator, Displaced Homemakers Project, Bath Center; University of Pittsburgh, B.A., 1970; University of Southern Maine, M.S., 1977
- Remen, Fred W.** (1985) Assistant Director, Facilities Management; Southern Connecticut University, B.S., 1978; Calhoun M.E.B.A. Engineering School, 1983
- Reno, Stephen J.** (1980) Associate Provost; St. John's College, A.B., 1965; University of California (Santa Barbara), M.A., 1968; Ph.D., 1975
- Reuter, John E.** (1969) Associate Professor of English; University of New Hampshire, A.B., 1958; University of Rochester, M.A., 1963; Ph.D., 1968
- Reynolds, Randy D.** (1986) Director of Facilities Management; Thomas College, B.S., 1974
- Rhodes, Gale W.** (1985) Associate Professor of Chemistry, North Carolina State University, B.S., 1965; University of North Carolina, Ph.D., 1971
- Rhodes, Pamela S.** (1987) Laboratory Technical Associate; University of North Carolina, B.A., 1964
- Ricci, John S.** (1981) Professor of Chemistry; American International College, A.B., 1962; Columbia University, M.A., 1963; SUNY (Stony Brook), Ph.D., 1969
- Rice, Frances** (1986) Reference Librarian/Cataloger; University of Maine at Presque Isle, A.A., B.S., 1977; Simmons College, M.L.S., 1978
- Rich, Barbara** (1974) Associate Professor of Social Welfare; Columbia University, M.S.W., 1970
- Richardson, Linda L.** (1986) Assistant Professor of Finance; Connecticut College, B.A., 1970; Montana State, M.S., 1974
- Riciputi, Remo H.** (1965) Associate Professor of Biology; University of New Hampshire, B.A., 1954; M.S., 1958
- Rieser, Alison** (1980) Director, Marine Law Institute and Adjunct Associate Professor, School of Law; Cornell University, B.S., 1973; George Washington University, J.D., 1976
- Roberts, James W.** (1967) Associate Professor of Political Science; San Diego State College, B.A., 1954; University of North Carolina, Ph.D., 1973
- Robichaud, Kathy** (1985) Enrollment Services Advisor; University of Southern Maine, B.A., 1985
- Rodgers, Marianne W.** (1981) Associate Professor, School of Nursing; University of Maine, B.S.N., 1967; Boston University, M.S., 1981
- Rogers, Paul C.** (1965) Professor of Mathematics; College of the Holy Cross, B.N.S., 1945; Boston University, M.A., 1948
- Rogoff, Martin A.** (1972) Professor, School of Law; Cornell University, B.A., 1962; University of California, Berkeley, M.A., 1963; Yale Law School, LL.B., 1966
- Rolfe, Frederick B.** (1966) Associate Professor of French; Bowdoin College, A.B., 1946; Middlebury College, A.M., 1948
- Rootes, Minor R.** (1966) Professor of Theatre; University of California, Santa Barbara, A.B., 1954; San Francisco State College, M.A., 1961; University of Connecticut, M.F.A., 1983
- Rosen, Kenneth E.** (1965) Professor of English; Pennsylvania State University, B.A., 1962; University of Iowa, M.F.A., 1964
- Rosenthal, Charlotte** (1987) Assistant Professor of Russian; Cornell University, B.A., 1964; University of Chicago, M.A., 1967; Stanford University, Ph.D., 1979
- Ross, Paul** (1978) Artist in Residence, Music; Juilliard School of Music, B.M., and Performers Degree, 1960
- Rost, Mary Ann** (1972) Director, Department of Continuing Education for Nursing and Health Professions and Adjunct Faculty, School of Nursing; Boston College, B.S., 1964; University of Massachusetts, M.S., 1972
- Rote, Neal** (1987) Director, Applied Immunology Program; Temple University, B.A., 1969; Ph.D., 1974
- Rusch, Willard** (1987) Assistant Professor of English; State University of New York, Fredonia, B.A., 1976; University of Illinois, M.A., 1981; Ph.D., 1987
- Russell, Marilyn** (1984) Research Assistant, Human Services Development Institute, Public Policy and Management Program; University of Southern Maine, B.A., 1981
- Russell, Robert J.** (1979) Associate Professor of Music; Wake Forest University, B.A., 1971; University of North Carolina, M.M., 1975; University of Colorado, D.M.A., 1979
- Russo, Marianne E.** (1985) Professional Nurse, Student Health Center; Akron General Hospital, R.N., 1969
- Ryan, Judith S.** (1979) Director of Campus/Student Centers and Student Activities; University of South Florida, B.F.A., 1975; University of Southern Maine, M.A., 1982
- Salvo, Gerard R.** (1979) Coordinator of Admissions and Administrative Services, Child Care Services; University of Southern Maine, B.A., 1977
- Sampson-Armstrong, Priscilla** (1986) Child Development Specialist, Child and Family Institute; University of Southern Maine, B.A., 1970; M.Ed., 1980; Southern Maine Vocational Institute, A.A., 1984

- Sanborn, Jane O.** (1961) Associate Professor of Psychology; Wilson College, A.B., 1942; University of California, Los Angeles, Ed.D., 1961
- Sanders, John J.** (1982) Assistant Professor of Accounting; Plymouth State College, B.S., 1972; University of Southern Maine, M.B.A., 1977; C.P.A. (Maine)
- Sanders, Thomas B.** (1988) Assistant Professor of Business Administration; University of Minnesota, B.A., 1968; American Graduate School of International Management, M.S., 1970; University of Colorado, Boulder, Ph.D., 1987
- Schaible, Robert M.** (1986) Assistant Professor of English; Furman University, B.A., 1965; University of Tennessee, M.A., 1966; Ph.D., 1971
- Schiferl, Ellen** (1980) Associate Professor of Art; Grinnell College, B.A., 1971; University of Minnesota, M.A., 1974; Ph.D., 1980
- Schleh, Eugene, P.A.** (1965) Professor of History; Union College, B.A., 1961; Yale University, M.A., 1962; Ph.D., 1968
- Schroff, Roger** (1982) Associate Professor of Computer Science; Kansas University, B.A., 1966; M.A., 1978; M.S., 1979; Ph.D., 1980
- Schuler, Carl J.** (1987) Physician, Student Health Center; State University of New York at Binghamton, B.A., 1974; University of Southern Maine, B.A., 1980; University of New England College of Osteopathic Medicine, D.O., 1984
- Schwanauer, Francis** (1962) Professor of Philosophy; Technical University of Stuttgart, Dr.Phil., 1959
- Schwanauer, Johanna** (1963) Lecturer in German; Wellesley College, B.A., 1957
- Selkin, Michael** (1970) Associate Professor of English; Columbia College, A.B., 1961; Cornell University, M.A., 1963; Columbia University, Ph.D., 1975
- Shaughnessy, Michael** (1987) Assistant Professor of Art; University of Missouri, Kansas City, B.A., 1981; Ohio University, M.F.A., 1984
- Shea, Linda B.** (1987) Staff Associate, Advising and Academic Information; University of Southern Maine, B.A., 1984
- Shedletsky, Leonard** (1979) Associate Professor of Communication; Brooklyn College, B.A., 1965; San Francisco State College, M.A., 1968; University of Illinois, Ph.D., 1974
- Sheppard, Lucille T.** (1972) Administrative Staff Associate, Department of Community Programs
- Shoobs, Dorothy S.** (1973) Associate Professor, School of Nursing; New York University, B.S., 1953; M.A., 1960; Ph.D., 1973
- Silvernail, David L.** (1977) Director of Testing and Assessment and Associate Professor of Education; Indiana University, A.B., 1969; M.S., 1975; Ed.D., 1977
- Silvernail, Susan M.** (1977) Assistant to the Chief Executive, Lewiston-Auburn College; Ball State University, B.S., 1975; University of Southern Maine, M.S., 1980
- Simonds, Stephen P.** (1971) Director of International Studies; University of New Hampshire, A.B., 1948; University of Chicago, M.A., 1953
- Sinclair, Gail M.** (1978) Professional Nurse, Student Health Center; Maine Medical Center, R.N., 1963
- Skoner, Martha** (1987) Assistant Professor, School of Nursing; University of Pittsburgh, B.S.N.Ed., 1959, M.N.Ed., 1963, Ph.D., 1974
- Slavick, William H.** (1970) Professor of English; University of Notre Dame, B.A., 1949; M.A., 1951; Ph.D., 1971
- Small, Samuel R., Cpt.** (1986) Assistant Professor of Military Science; University of Maine, B.S., 1977; University of Southern Maine, M.Ed., 1985
- Small, William U.** (1967) Academic Counselor; Bowdoin College, A.B., 1949; Columbia University, M.B.A., 1951
- Smith, Alan G.** (1967) Professor of Chemistry; Mount Allison University (New Brunswick), B.S., 1949; University of New Brunswick, M.S., 1951; University of Maine, Ph.D., 1966
- Smith, Charles F.** (1969) Associate Professor of Education; Westfield State College, B.S., 1960; University of Massachusetts, M.S., 1963; Ed.D., 1969
- Smith, Dorothy Woods** (1986) Instructor of Nursing, Johns Hopkins University, B.S.N., 1960; University of Southern Maine, M.Ed., 1975; New York University, M.A., Nursing, 1985
- Smith, James W.** (1986) Associate Professor of Applied Science; Pennsylvania State University, B.S., 1961; M.S., 1963; Ph.D., 1967
- Snell, Mary E.** (1985) Concert Manager; University of Maine, B.A., 1971
- Soifer, Naira B.** (1984) Visiting Associate Professor of Law; Bryn Mawr College, B.A., 1974; Boston College Law School, J.D., 1980; Georgetown University Law Center, LL.M., 1983
- Sottery, Theodore W.** (1956) Professor of Chemistry; Dartmouth, B.N.S., 1949; University of Maine, M.S., 1956; Ph.D., 1966
- Southworth, Robert S.** (1963) Professor of Education Psychology; Boston University, B.A., 1951; Ed.M., 1958; Ed.D., 1965
- Soychak, Anthony G.** (1965) Assistant Professor of Mathematics; University of Maine, B.S., 1959; Bowdoin College, M.A., 1963
- Spaulding, Forrest** (1983) Television Technical Operations Specialist
- Spear, Joanne** (1977) Director, Department of Community Programs; University of Maine, B.S., 1974; M.S., 1977
- Stebbins, Barbara D.** (1984) Assistant Director of Media Services; Bethany College, B.A., 1971; University of Hawaii, M.Ed., 1983
- Stebbins, Richard G.** (1983) Associate Professor of Chemistry; Wesleyan University, B.A., 1965; Texas A & M University, Ph.D., 1970
- Steele, William P.** (1967) Associate Professor of Theatre; University of Maine, B.S.Ed., 1964; M.A., 1967
- Steinman, Richard** (1966) Professor of Social Welfare; University of Missouri, B.A., 1949;

- Columbia University, M.S., 1952; Brandeis University, Ph.D., 1968
- Stevens, Rachel E.** (1986) Residence Director/Counselor, Residence Life; University of New Hampshire, B.S., 1983
- Stevens, Reid D.** (1985) Assistant Professor of Education; Suffolk University, B.S., 1971; University of Maine at Orono, M.Ed., 1973; University of Georgia, Ph.D., 1981
- Stocks, Cynthia M.** (1987) Conference Coordinator, Department of Conferences; University of Maine, B.A., 1985
- Stockwell, Ira W.** (1972) Physician, Student Health Center; University of Maine, B.S., 1960; Kirksville College of Osteopathy, D.O., 1970
- Stone, Deborah** (1983) Assistant Professor, School of Nursing; University of New Hampshire, B.S.N., 1977; Boston University School of Nursing, M.S.N., 1983
- Strom, Kimberly J.** (1988) Assistant Professor of Social Work; University of Maine, B.A./B.S.W., 1980; Adelphi University, M.S.W., 1981
- Stump, Walter R.** (1968) Professor of Theatre; San Diego State College, B.A., 1959; M.A., 1960; Indiana University, Ph.D., 1974
- Sturgeon, Richard H.** (1962) Director, Advising and Academic Information Department; Veterans Affairs Coordinator; Associate Professor of Physical Education; University of Maine, B.S., 1960; M.Ed., 1966
- Sturner, William** (1978) Professor of Management; Fordham College, B.S.S., 1957; University of Wisconsin, M.A., 1960; Fordham University, Ph.D., 1966; Certificate, Gestalt Institute of Cleveland, 1978
- Sullivan, James V.** (1959) Coordinator and Professor, Therapeutic Recreation Programs and Director of Employee Health and Recreation; University of Maine, B.S.Ed., 1951; University of Delaware, M.Ed., 1954; Boston University, Ed.D., 1971
- Suscavage, Charlene E.** (1986) Assistant Professor of Spanish; Millersville State, B.S.E., 1970; University of Delaware, M.A., 1973; Penn State University, Ph.D., 1980
- Sutton, John M., Jr.** (1978) Associate Professor of Education; Boston College, A.B., 1961; University of Maine, M.S., 1972; Ed.D., 1976
- Swain, Susan** (1986) Assistant Director of Media Relations; City College of New York, B.A., 1974
- Swanson, Mark T.** (1983) Assistant Professor of Geology; Northeastern University, B.S., 1975; Lehigh University, M.S., 1979; State University of New York at Albany, Ph.D., 1982
- Sweet, Curtis B.** (1985) Director of Telecommunications; Brandeis University, B.A., 1979
- Sytsma, Donald** (1972) Associate Professor of Psychology; Arizona State University, B.A., 1965; University of Waterloo, Ph.D., 1971
- Talbot, Franklin** (1963) Reference Librarian; University of Maine, B.A., 1946; Columbia University, M.S., 1949
- Taylor, Susan E.** (1979) Administrative Manager, School of Nursing; Westbrook College, A.S., 1979
- Thomas-Lawson, Marjorie** (1987) Assistant Professor, School of Nursing; Thiel College, B.A., 1969; University of Pittsburgh, B.S.N., 1970; Penn State University, M.N., 1976
- Thompson, Janice** (1984) Associate Professor of Nursing; University of Iowa, B.S.N., 1975; University of Utah, Ph.D., 1983
- Tiffany, Julia** (1981) Associate Professor, School of Nursing; University of Washington, Seattle, B.S., 1962; Rutgers, The State University, M.S., 1967
- Tilbor, Karen R.** (1986) Research Assistant, Human Services Development Institute, Public Policy and Management Program; Elmira College, B.A., 1968; Wheelock College, M.S.Ed., 1969
- Tisdale, Janice** (1984) Research Assistant, Small Business Development Center, School of Business Economics and Management; Bates College, B.S., 1971; University of Minnesota, M.A., 1972
- Tizon, Judy** (1972) Associate Professor of Anthropology; University of Illinois, B.A., 1965; University of California, M.A., 1969; Ph.D., 1975
- Tryon, Phyllis A.** (1965) Associate Professor; School of Nursing; Boston University, B.S., 1958; Yale University, M.S.N. and C.N.M., 1962
- Tucker, Frances M.** (1970) Registrar, School of Law
- Tukey, Geraldine M.** (1970) Associate Professor, School of Nursing; Mercy College of Detroit, B.S., 1957; Boston University, M.S., 1964
- Turner-Salpietra, Caitlin** (1986) Head Teacher, Child Care Services; University of Southern Maine, B.E.A., 1975
- Ubans, Juris K.** (1968) Professor of Art; Director, Art Gallery; Syracuse University, B.E.A., 1966; Pennsylvania State University, M.E.A., 1968
- Ubans, Mara** (1970) Associate Professor of German; Indiana University, A.B., 1960; University of Southern California, M.A., 1962; Ph.D., 1975
- Vance, FR** (1985) Head Teacher, Child Care Services; University of Southern Maine, B.E.A., 1975
- Vanzandt, C.E.** (1987) Assistant Professor of Education; Michigan State University, B.A., 1969; M.A., 1970; University of Maine, Ed.D., 1976
- Veazie, Carl E.** (1977) Senior Economist, School of Business, Economics and Management; Whitman College, B.A., 1943; Columbia University, M.B.A., 1948
- Ventresco, Fiorello B.** (1966) Associate Professor of History; Boston University, A.B., 1959; University of Michigan, M.A., 1961
- Vess, Susan M.** (1988) Assistant Professor of School Psychology, Human Resource Development; Loretto Heights College, B.A., 1970; University of Illinois, A.M., 1972; Ph.D., 1977

- Viana, Marlos A.G.** (1987) Assistant Professor of Mathematics; Universidade Federal, Rio de Janeiro, B.S., 1971; M.S., 1973; Stanford University, M.S., 1975; Ph.D., 1978
- Viehmann, Nancy Hines** (1982) Assistant Director, Department of Community Programs; Hartford College for Women, A.A., 1966; Marymount College, B.A., 1968; Boston State College, M.Ed., 1974
- Vijaykumar, Rukmini** (1988) Assistant Professor of Computer Science; Indian Institute of Technology (India), M.Sc., 1976; M.Tech., 1978
- Vincent, Noreen** (1985) Learning Resource Consultant, School of Nursing; Hunter College, B.S.N., 1973
- Violette, George R.** (1988) Assistant 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) Assistant Professor of Business Administration; Harvard University, A.B., 1973; Clark University, M.B.A., 1981; University of Massachusetts, Ph.D., 1986
- Walker, David** (1986) Instructor of English; Bowdoin College, B.A., 1964; University of Oxford, B. Litt., 1967
- Walking, Robert A.** (1969) Associate Professor of Physics; Swarthmore College, B.A., 1953; Harvard University, M.S., 1954; Ph.D., 1962
- 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
- Warren, Beth I.** (1978) Executive Director for Human Resources; Wheaton College, B.A., 1959; Simmons College School of Social Work, M.S.W., 1963
- Watterworth, Richard H.** (1987) Assistant Professor of Associate Business Administration; Quinnipiac College, B.S., 1961; Central Connecticut State University, M.A., 1967
- Watts, Felicity** (1987) Assistant Professor of Philosophy; St. Anne's College, Oxford University, B.A., 1981; University of Pennsylvania, Ph.D., 1986
- Waxler, Lawrence I.** (1976) Coordinator of Contracts and Grants, Office of Sponsored Research; University of Maine at Portland-Gorham, B.S., 1975
- Webster, Brenda D.** (1984) Information Services Associate, School of Nursing; University of Southern Maine, B.A., 1981
- Weil, E. Jane** (1987) Research Assistant I, Human Services Development Institute, Public Policy and Management Program; University of Oregon, B.A., 1962; University of Pittsburgh, M.Ed., 1967
- Wells, William** (1986) Law Librarian and Associate 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.A., 1977; Ph.D., 1979
- Wernick, Sidney W.** (1983) Adjunct Professor of Law; University of Pennsylvania, B.A., 1934; M.A., 1935; Harvard University, Ph.D., 1937; LL.B., 1940
- Wescott, Madeline H.** (1956) Staff Associate for Payroll, Division of Human Resources
- Westfall, James R.** (1983) Assistant Professor of Associate Business Administration; Dartmouth College, A.B., 1967; Amos Tuck School of Business Administration, M.B.A., 1968
- Westort, Peter J.** (1986) Assistant Professor of Accounting; St. Francis Xavier University, B.A., 1969; University of Southern Maine, M.B.A., 1980; CPA (Maine)
- Whetten, Cynthia H.** (1986) Professional Nurse, Student Health Center; University of Vermont, R.N., 1980
- Whitcher, Sally** (1984) Instructor of Nursing; Fitchburg State College, B.S.N., 1976; Arizona State University, M.S.N., 1981
- Whitmore, Allan R.** (1969) Associate Professor of History; University of Maine, B.A., 1962; Northwestern University, M.A., 1964; Ph.D., 1970
- Willard, Jonathan S.** (1987) Database Manager, 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; State University College, Plattsburgh, N.Y., M.S., 1967
- Wiley, Barbara** (1965) Employment Services Consultant, Division of Human Resources; Westbrook Junior College, A.S., 1946
- Williamson, Gabriel P.** (1981) Exercise Specialist, Lifeline Adult Fitness Program; University of Southern Maine, B.S., 1975; M.S., 1979
- Willison, Gary S., Lt.C.** (1984) Professor of Military Science; Indiana University of Pennsylvania, B.S., 1966, M.Ed., 1973; C&GS, Fort Leavenworth, KS, M.M.S., 1980
- Wise, William B.** (1966) Executive Assistant to the Vice President for Student Affairs; University of Maine, B.S., 1961; University of Maine at Orono, M.Ed., 1971
- Wood, Margo** (1980) Associate Professor of Education; Vassar College, B.A., 1961; University of Southern Maine, M.S., 1979; Boston University, Ed.D., 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, James L.** (1977) Vocational Education In-Service Staff Developer and Assistant Professor of Vocational Education; Boston University, B.S., 1950; Bridgewater State College, M.Ed., 1956; University of Maine at Orono, Ed.D., 1973

Wroth, L. Kinvin (1964) Dean and Professor, School of Law; Yale, B.A., 1954; Harvard, J.D., 1960

Xanthopoulos, Carol (1987) Coordinator, Developmental Mathematics; University of New Hampshire, B.A., 1966

Young, Cynthia A. (1978) Staff Associate for Student Advising, School of Business, Economics and Management; University of Southern Maine, B.S., 1987

Young, Jane Coolidge (1988) Assistant Professor of Nursing; University of Maine, School of Nursing, B.S., 1970; Boston University, M.S., 1975; University of Rochester, Ph.D., 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

Zimmerman, Jean T. (1983) Coordinator of Student Intramurals and Recreation; Gettysburg College, B.A., 1974; University of New Hampshire, M.S., 1978

Zolidis, Nancy R. (1988) Assistant Professor of Geology; Kent State University, B.A., 1970; University of Wisconsin-Madison, M.S., 1981; Ph.D., 1988

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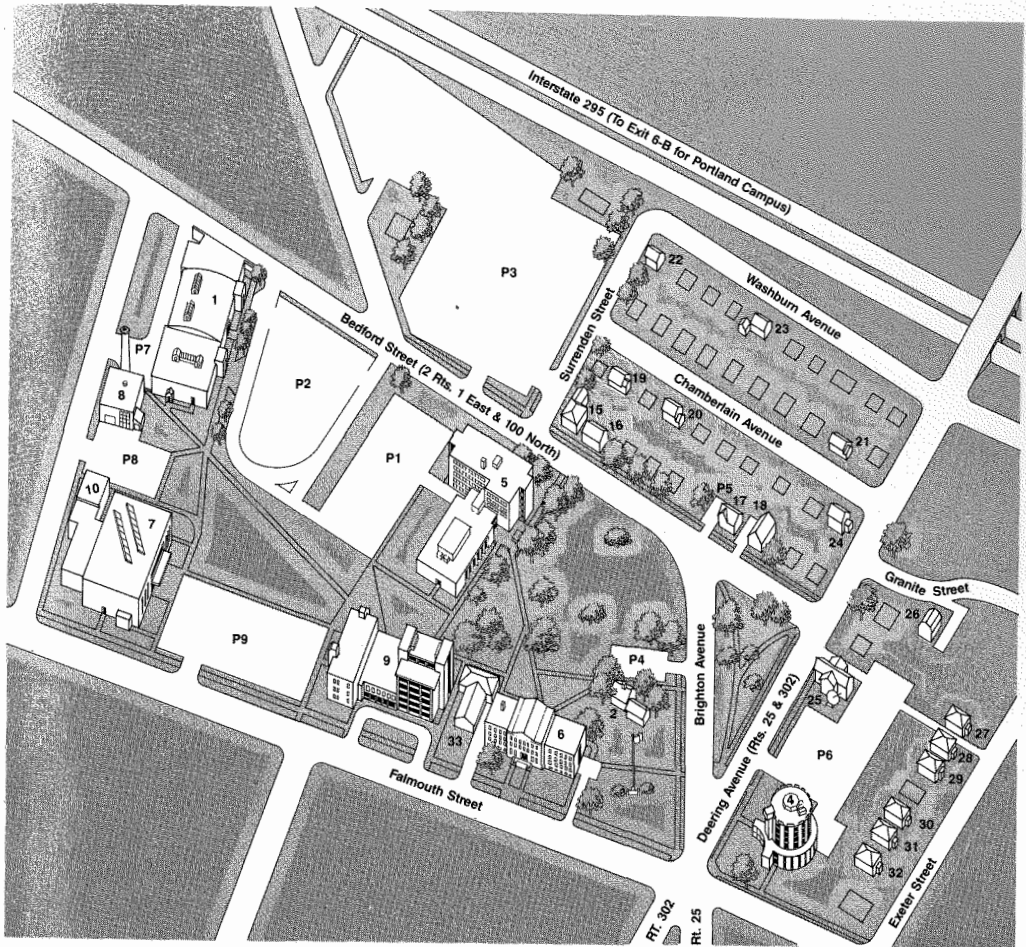
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Portland Campus



Portland Campus

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|--|-------------------------|
| 1. Campus Center (Bookstore, Dining Center) | 25. 228 Deering Avenue |
| 2. Alumni House | 26. 11 Granite Street |
| 4. Law School/Center for Research and Advanced Study | 27. 39 Exeter Street |
| 5. Luther Bonney Hall (Library) | 28. 45 Exeter Street |
| 6. Payson Smith Hall | 29. 47 Exeter Street |
| 7. Portland Gymnasium | 30. 55/57 Exeter Street |
| 8. Central Heating Plant | 31. 59/61 Exeter Street |
| 9. Science Building | 32. 65 Exeter Street |
| 10. Child Care | 33. West Hall |
| 15. 92 Bedford Street | |
| 16. 94 Bedford Street | |
| 17. 118 Bedford Street | |
| 18. 120 Bedford Street | |
| 19. 7 Chamberlain Avenue | |
| 20. 15 Chamberlain Avenue | |
| 21. 38 Chamberlain Avenue | |
| 22. 3 Washburn Avenue | |
| 23. 25 Washburn Avenue | |
| 24. 209 Deering Avenue | |

Parking

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|------------------------------------|
| P1. Faculty/Staff/Student Commuter |
| P2. Student Commuter |
| P3. Student Commuter/Resident |
| P4. Faculty/Staff |
| P5. Faculty/Staff |
| P6. Faculty/Staff/Visitor |
| P7. Faculty/Staff/Student Commuter |
| P8. Faculty/Staff |
| P9. Student Commuter |

