

1982

## University of Southern Maine Undergraduate Catalog 1982-1983

University of Southern Maine

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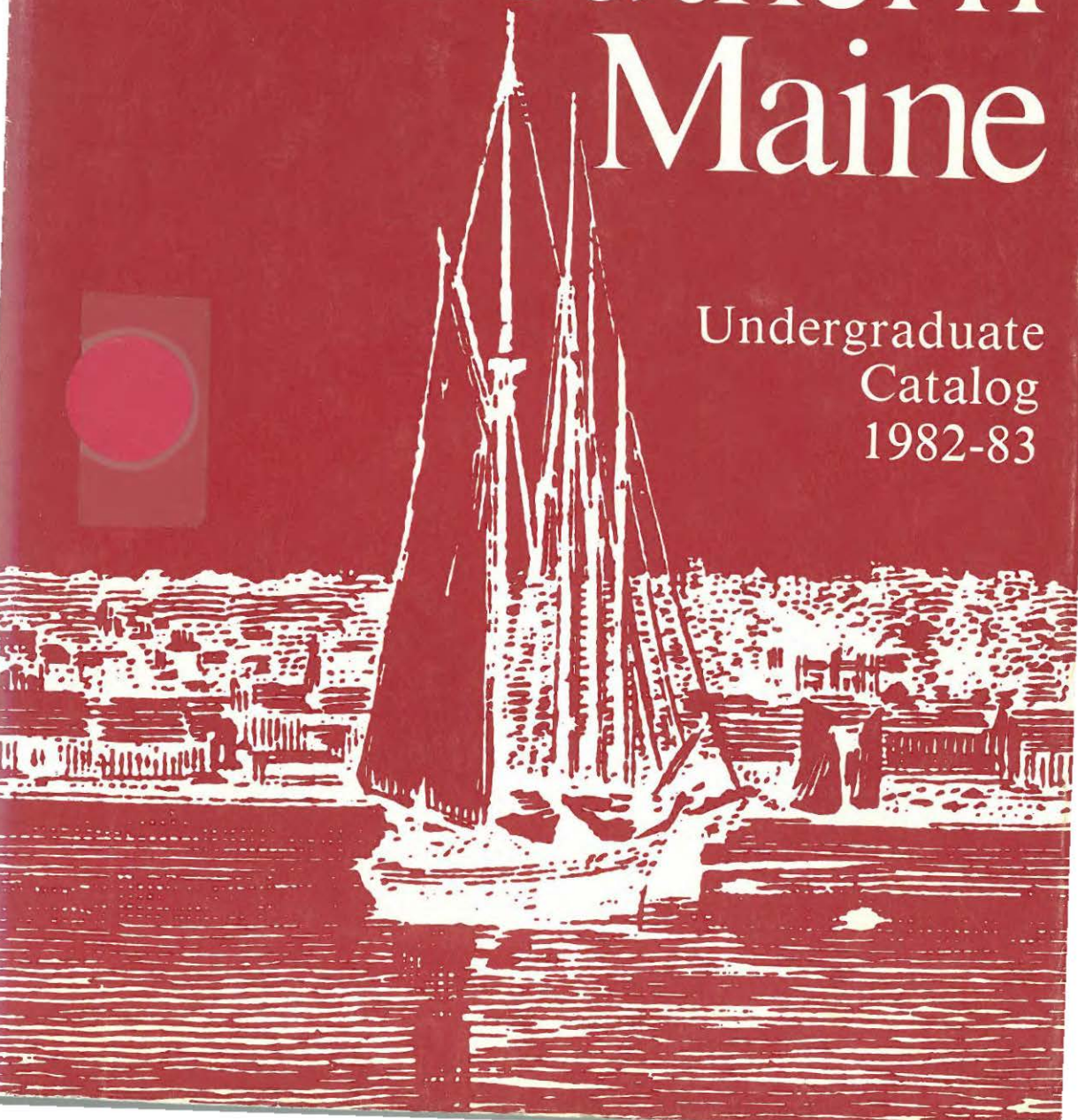
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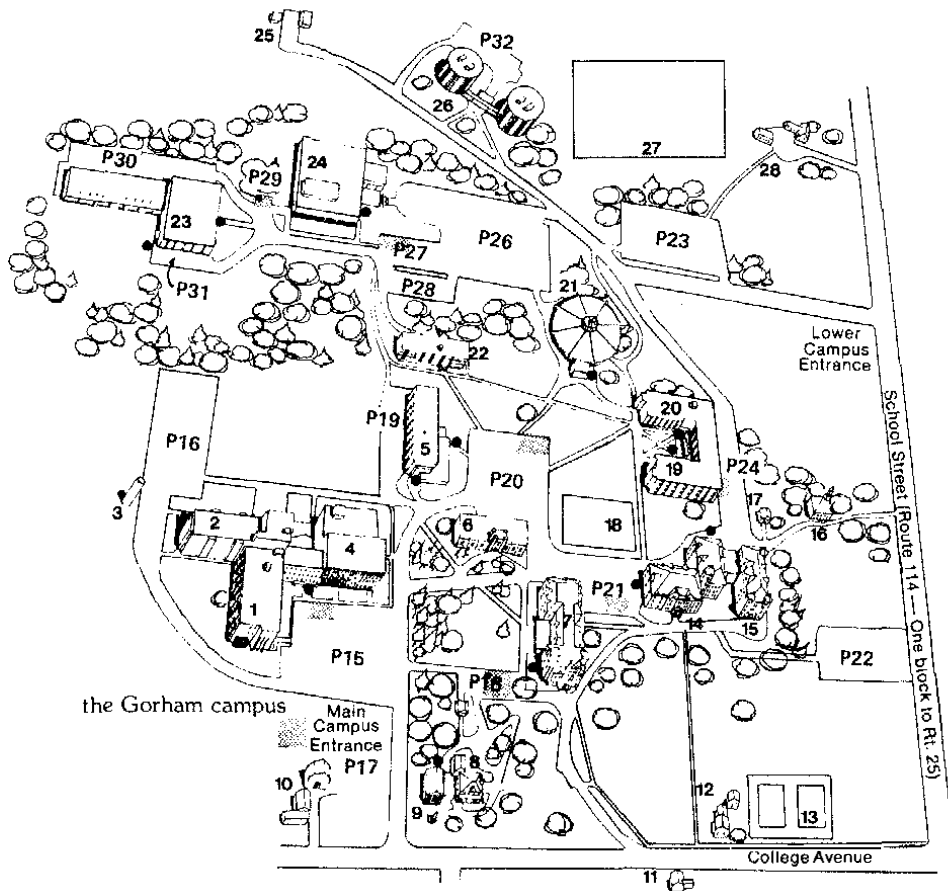
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# University of Southern Maine

Undergraduate  
Catalog  
1982-83





Accessible buildings provide entrances (indicated by dots) and elevators adequate for all handicapped persons. Parking areas for the handicapped are shown by dotted areas.

#### Gorham Campus

1. Bailey Hall (Science)
2. Bailey Hall (Classroom)
3. Water Tower
4. Bailey Hall (Library)
5. Woodward Hall
6. Russell Hall
7. Corthell Hall (Admissions)
8. President's House
9. Art Gallery
10. Facilities Management
11. University College of Education,  
24 College Avenue
12. Maine Children's Resource Center,  
19 College Avenue
13. Tennis Courts
14. Robie Hall
15. Andrews Hall
16. The "Academy"
17. Service Building
18. Tennis Courts
19. Hastings Hall
20. Upton Hall
21. Dining Center
22. Anderson Hall
23. Industrial Education Center
24. Warren G. Hill Gymnasium
25. Heating and Sewage Plants

26. Dickey-Wood Residential Towers
27. Athletic Field
28. McLellan House

#### 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. Faculty/Staff
- P30. Student Commuter
- P31. Faculty/Staff
- P32. Faculty/Staff

# **University of Southern Maine**

## **Undergraduate Catalog**

### **1982-1983**

**Prepared for the USM Office of Admissions by the Office of Publications. Please address mail requests for catalogs and other printed admissions material to:**

**ADMISSIONS OFFICE, USM  
37 College Avenue  
Gorham, Maine 04038**

Our cover was prepared in honor of Greater Portland's 350th anniversary. The cover was taken from a woodcut of the Portland waterfront printed in the *New Intermediate Atlas* published in 1875 by Scribner and Sons. (The book itself was rescued from the dump in Kennebunkport, Maine).

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 does not discriminate on the basis of race, color, creed, sex, national origin, handicap, or age in the recruitment and admission of students, the recruitment and employment of faculty and staff, and the operation of any of its programs and activities, as specified by federal and state laws and regulations. The designated coordinator for University compliance with these laws is Kathleen H. Bouchard, Director of Equal Employment Opportunity/Affirmative Action.

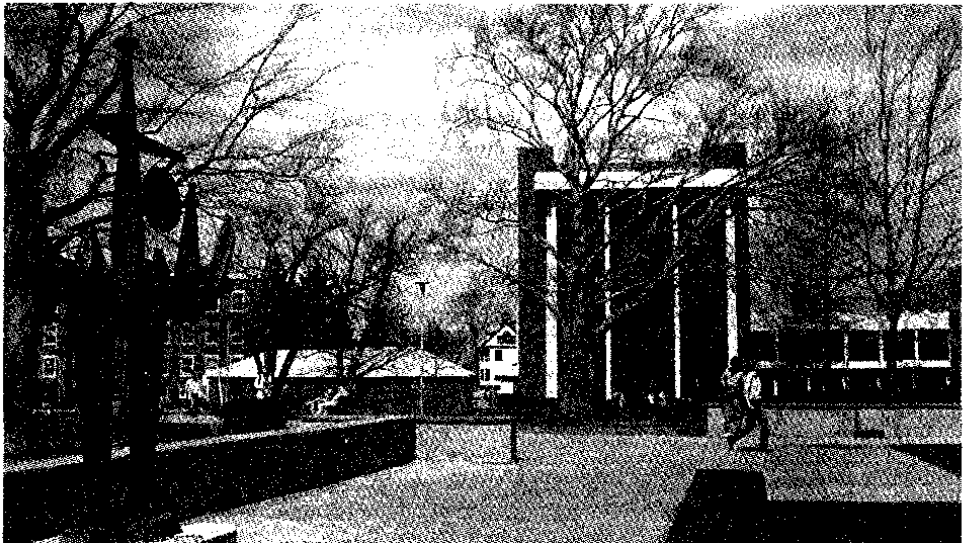
The University of Southern Maine reserves the right to revise, amend or change items set forth in this catalog from time to time. Accordingly, readers of this catalog should inquire as to whether any such revisions, amendments or changes have been made since the date of publication. The University reserves 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

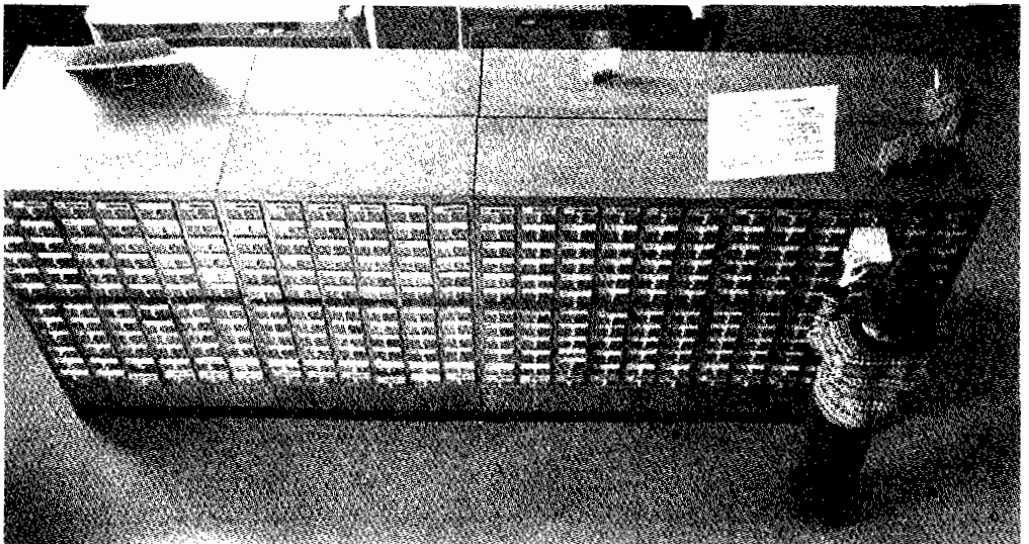
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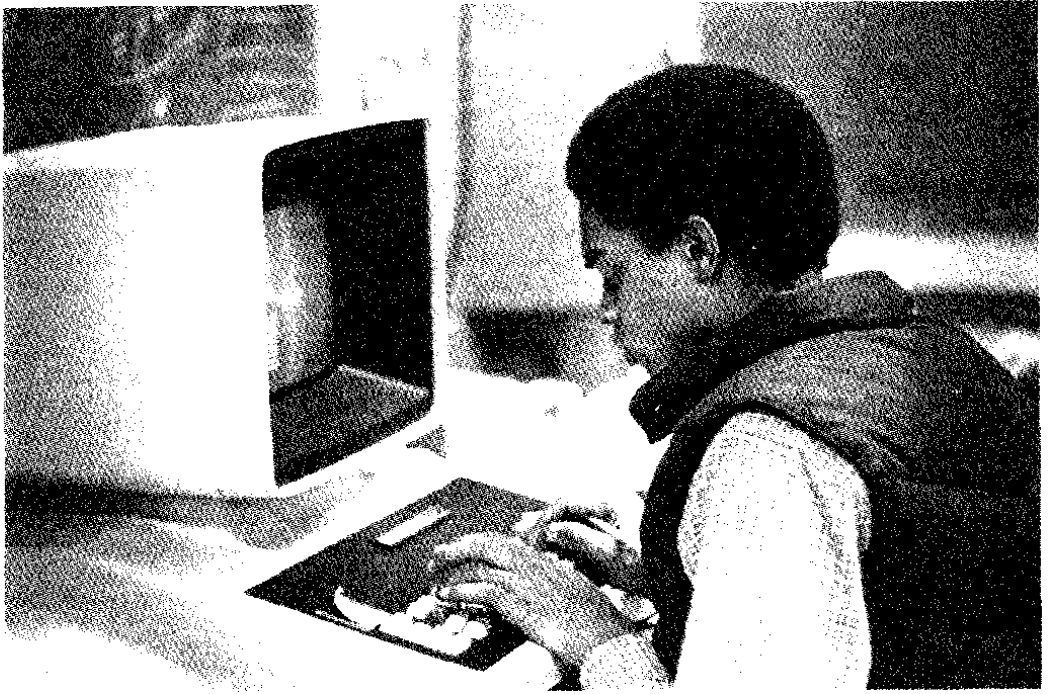
## FALL SEMESTER

First Day of Classes	Tuesday, September 7 at 8:00 a.m.
Last Day to Add Classes	Monday, September 13
Last Day to Drop Classes	Monday, September 20
Last Day to Withdraw from Classes Without Academic Penalty	Monday, October 18
October Vacation Begins	After classes on Thursday, October 21
Classes Resume	Monday, October 25 at 8:00 a.m.
Thanksgiving Vacation Begins	Wednesday, November 24 at 4:00 p.m.
Classes Resume	Monday, November 29 at 8:00 a.m.
Last Day of Classes	Wednesday, December 15
Reading Day	Thursday, December 16 (4:00 and 7:00 p.m. classes will meet for their final session)
Final Exams	Friday, December 17, Monday, December 20, Tuesday, December 21, Wednesday, December 22

## SPRING SEMESTER

First Day of Classes	Monday, January 10 at 8:00 a.m.
Last Day to Add Classes	Friday, January 14
Last Day to Drop Classes	Friday, January 21
Last Day to Withdraw from Classes Without Academic Penalty	Friday, February 18
February Vacation Begins	After classes on Friday, February 18
Classes Resume	Monday, February 28 at 8:00 a.m.
Spring Vacation Begins	After classes on Friday, April 1
Classes Resume	Monday, April 11 at 8:00 a.m.
Last Day of Classes	Friday, April 29
Final Exams	Monday, May 2 through Friday, May 6
Commencement	Saturday, May 7





## USM—A Capsule View

USM has a long, rich history and a new name. In 1970 USM was founded under the name of University of Maine at Portland-Gorham when Gorham State College, established in 1878, and the University of Maine in Portland, which dates back to the 1930's were merged. In 1978 UMPG was renamed the University of Southern Maine to more accurately describe its unified mission and a clearly defined statewide and regional focus.

Many historical buildings can be found on both campuses along side many modern structures. While the older buildings lend character and a sense of history to the University, 60 percent of USM's facilities have been built in the last twenty years. USM also has outreach centers in Sanford, Saco and in-town Portland.

This coeducational public university has 8,000 students, yet because of its two campuses — one urban, one rural — it has the intimacy of a small campus with the diversity of a large university. The campuses are connected by frequent, free bus service.

About 1,100 students live in residence halls on the Gorham campus, others commute from home or apartments. Nearly 4,000 students attend USM part-time and range in age from 18 to 80. Classes are offered on both campuses for full- or part-time students from 8:00 a.m. to 9:30 p.m.

USM has an excellent faculty of nearly 350; more than half hold doctorate degrees. Students may

select from among some 1,000 courses and sections each term in a wide variety of subjects. Courses of study include the liberal arts, teacher preparation, nursing, and business. Degrees are offered at the associate, bachelor and masters level and USM's first doctoral program has been approved for implementation in 1986. The University of Maine School of Law is also located on the USM Portland campus.

USM is accredited by the New England Association of Schools and Colleges. Its most recent reaccreditation is for a period of ten years, the longest possible period, indicating that the University has been carefully evaluated and found to meet or exceed high standards. Additional accreditations have been granted to individual units within the University. The School of Nursing is accredited by the National League for Nursing and the College of Education, by the National Council for Accreditation of Teacher Education. Several departments within the College of Arts and Sciences are approved by specialized accrediting bodies.

The University offers a range of services to its students, including health services, complete with an infirmary and an out-patient clinic. An advising and information department, and an office of counseling and career development, as well as residence hall counselors are available to students.

Beyond the classroom is a wide choice of activities



both on and off campus. Lakes, mountains and the coast offer many opportunities for recreational sport; Portland, one of our nations' most "livable" cities, is bursting with music (of all varieties), art, theatre, professional sports and intriguing specialty and craft shops. The campus too is alive with activities. Strong departments of theatre, music and art provide numerous occasions for fun and learning.

An active, viable Student Senate sponsors public lectures and social events. Elected each spring, the Student Senate oversees the financing and management of activities, services and lobbying efforts in the student interest. The Student Senate, along with approximately 50 other student organizations, plays a key role in meeting the varied needs of and in bringing together a student body characterized by differences in age, background, educational objectives, lifestyles and residence.

USM has a strong, competitive athletic program for men and women. Its teams have frequently participated in regional and national tournaments. Men's teams have shown great strength in baseball, soccer, and basketball — golf and tennis are also strong. Women's teams have enjoyed success in field hockey, tennis, volleyball, basketball and softball. The University is committed to promoting life-long physical fitness for everyone through a comprehensive program called Lifeline for students, faculty, staff and hundreds of local residents.

The University engages in a wide variety of public service and research activities which complement regular academic programs.

The Department of Community Programs, Department of Conferences, Lifeline, Department of Continuing Education for Nursing and Health Professions, Center for Real Estate Education, In-Service Teacher Education, and Center for Continuing Legal Education offer an extensive array of short-term professional programs.

Over 20,000 people each year participate in such programs.

The Center for Research and Advanced Study conducts applied research and offers many programs through the Human Services Development Institute, New Enterprise Institute, Biomedical Research Institute, Small Business Development Center, and Marine Law Institute.

## **BE OUR GUEST...**

There are many points of interest to see, on both the Gorham and Portland campuses.

At Gorham, one finds McLellan House, believed to be the oldest brick house in the state of Maine. Now a residence for graduate students, it dates to 1773. Also at Gorham is the original Gorham Academy Building (1807), now housing the Art Department and the Gorham Town Hall (1771) which now serves as the University's Art Gallery.

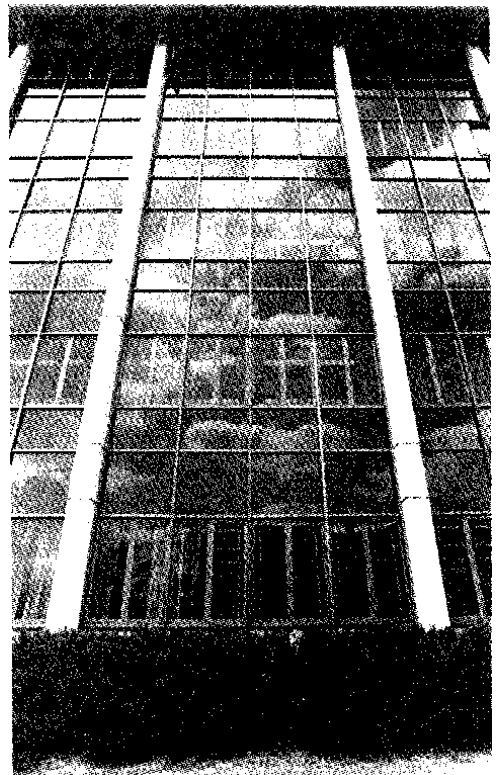
In Portland where the campus is located on what was once part of the Deering Estate, home of one of Portland's most prominent citizens when the city enjoyed its peak as a shipping port, one can find the original farmhouse constructed in the early eighteen hundreds. That farmhouse is now the University of Southern Maine Alumni Center.

By contrast, there are modern tower residence halls on the Gorham campus named for two former teachers, Edna Dickey and Esther Wood. Also of unusual architectural design is the Dining Center which contains the Student Center on the lower level.

Interesting sites on the Portland campus include the seven-story Center for Research and Advanced Study, which houses the University of Maine School of Law as well as several research institutes.

And USM's Southworth Planetarium, located in the Portland campus' modern Science Building, is one of New England's finest and hosts an ambitious series of programs attracting thousands of visitors annually.

But its the people who make USM special. Come for a visit, be our guest, meet the USM faculty and student body. You will soon understand why USM is the fastest growing, most dynamic institution of higher education in Maine.



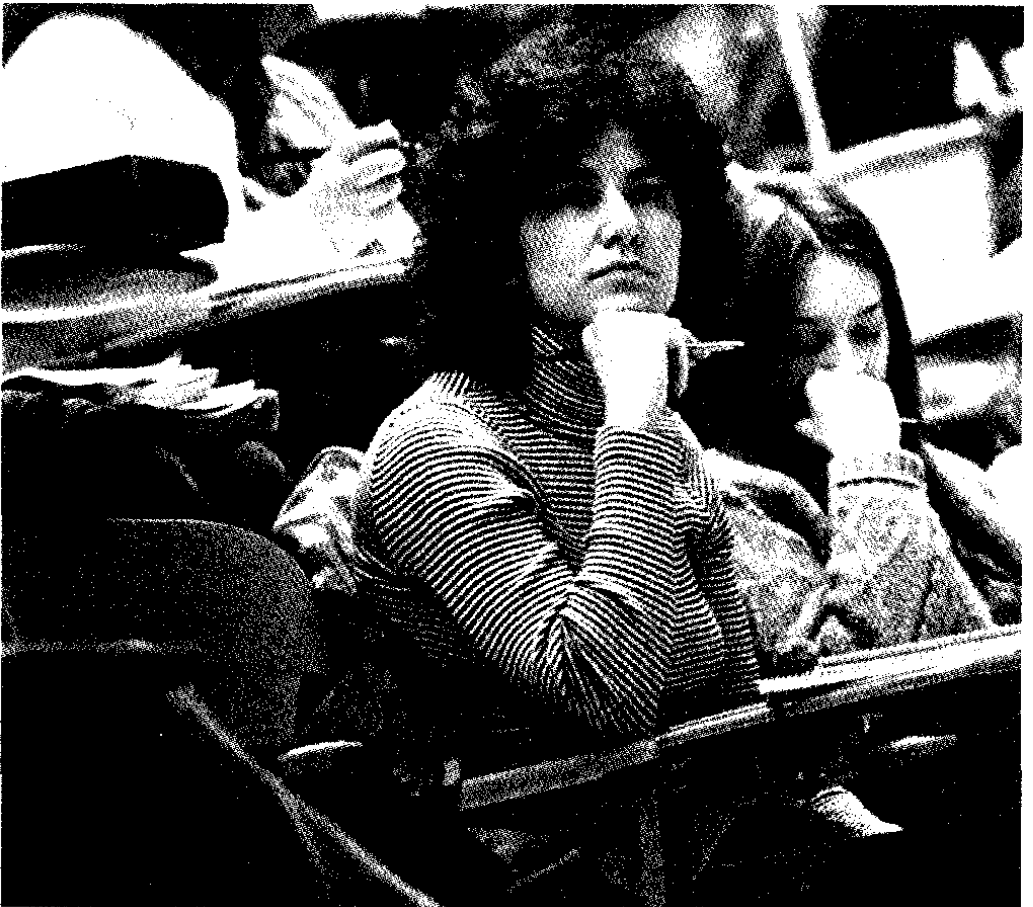
# Convocation

## 1982-83: The Changing Roles of Women and Men

In 1982-83 USM will sponsor its second year-long Convocation, a series of lectures, debates, workshops, programs and cultural events focused on an important contemporary issue. By active participation, both in organizing and attending Convocation events, students, faculty and staff can bring the knowledge and experience of many disciplines to bear on basic questions, stimulating intellectual exchange.

Perhaps no current issue is more central to the professional, personal and cultural life of every member of the USM community than our theme for 1982-83: The Changing Roles of Women and Men. In business, in the arts, in medicine, law, politics, religion, leisure, family life, the increasing active participation of women and men in non-traditional roles creates both possibilities and problems. Study of these changes involves reconsidering women's history and contributions, the assumptions by which women and men have lived, and the future possibilities for both.

All students, faculty and staff are encouraged to participate in this year's convocation by teaching or enrolling in courses related to the theme, offering ideas, support, and sponsorship for events to the Convocation Committee, and sharing the organizing, work, enjoyment and intellectual rewards of this shared academic and cultural enterprise. A list of courses specifically related to Convocation will be available prior to the beginning of the fall term. Students are encouraged to propose independent studies on specific areas of changing roles, such as the changing roles of men in family life, women in art, feminist theory, or implications of a developing split in political views between women and men. Students who wish to propose a study should contact either an individual faculty member or Professor Nancy Gish, Convocation Scholar, English Department, Portland. Faculty members are also encouraged to design courses related to Convocation, to sponsor independent studies and to develop related research. For further information contact Nancy Gish, Department of English or Alyce O'Brien, Office of University Relations.



# Undergraduate Admissions

The University welcomes applications for admission from academically qualified students regardless of their race, color, creed, sex, national origin, handicap or age. All candidates for admission must submit a completed University of Maine application form. Application materials may be obtained either in person or by telephone (207-780-5215) from the Office of Admissions located in Corthell Hall on the Gorham campus.

Admission to most degree programs at the University of Southern Maine is on a selective basis. The University admits men and women to its baccalaureate and associate degree programs whose academic credentials and life experiences indicate individual potential for success in a University-level curriculum.

Each applicant for admission is required to submit a completed University of Maine application form, including the non-refundable \$15 application fee, which details the candidate's personal, academic, and recreational background. Also, as an integral part of this application, the candidate is asked to describe in narrative form his/her interest in the University of Southern Maine and the specific degree program within the University to which the applicant is applying.

The University of Southern Maine will consider applicants 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 work. Due to the fact that some programs are only able to accept a limited number of candidates applicants are urged to submit their credentials at their earliest convenience in order to receive maximum consideration.

The University of Southern Maine also considers applicants for the spring semester each year. As in fall admissions, applicants are urged to submit all credentials on a timely basis in order to receive appropriate consideration.

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

## ADMISSION REQUIREMENTS

### SECONDARY SCHOOL PREPARATION

Requirements for admission to the University are established by each school and college within the University. The requirements indicated below are in keeping with the degree programs currently offered.

#### College of Arts and Sciences

English	4 Units
Mathematics	3 Units (Algebra I, II & Geometry)
Sciences	2 Lab Units
History/Social Science	2 Units
Foreign Language	2 Units (one language)
Mathematics Majors	4 Units
Biology Major	3 Lab Units; Pre-Nursing Candidates Biology, Chemistry
Foreign Language Majors	3 Units; Foreign Language optional for Pre-Nursing Candidates
Units =	one year of study

#### School of Business, Economics and Management

##### Four Year Baccalaureate Program

English	4 Units
Algebra I, II	2 Units
Geometry	1 Unit
Electives	9 Units

#### College of Education

English	4 Units
*Mathematics	3 Units (Algebra I, II & Geometry)
Sciences	2 Lab Units
History/Social Science	2 Units
Foreign Language	Optional
*Mathematics Majors in Secondary Education	4 Units

## **Associate Degree Programs**

### **BUSINESS ADMINISTRATION**

Candidates applying to this program of study may have either a college preparatory or a commercial business background. It should be noted that candidates with commercial business backgrounds must have records of strong academic achievement to be considered. English and mathematics are the basic prerequisites for this program. All other work in high school would be elective course study.

### **THERAPEUTIC RECREATION**

Candidates applying for admission to this program may have either a college preparatory or a general education background. Candidates with general subject backgrounds must have records of strong academic achievement to be considered. English and biological sciences are the basic prerequisites for the program.

### **DIVISION OF BASIC STUDIES**

Admission requirements vary from program to program within the Division of Basic Studies. Candidates are urged to review the Division of Basic Studies section of this catalog for the requirements of individual programs.

The Trustees of the University of Maine recognize that descriptive terminology such as 'traditional,' 'adult,' etc., are useful in describing certain administrative procedures. The Trustees wish to emphasize, however, that the circumstances which determine a student's enrollment status are secondary in the University's definition of a student and that students of various circumstance represent a desirable form of diversity.

### **TRADITIONAL FRESHMAN CANDIDATES**

Applicants who are applying to the University during their senior year in secondary school, or who have been graduated for less than three years with no collegiate attendance, must arrange for the forwarding of their secondary school transcript 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 admissions purposes.

### **ADULT CANDIDATES**

Applicants who have been graduated from secondary school for more than three years must also arrange for the forwarding of their secondary school transcript to the Admissions Office. The Scholastic Aptitude Test (SAT) scores are optional for admission. Adult candidates may submit SAT scores for placement purposes since these scores may be used to declare minimum academic proficiencies. Evaluation of adult candidates will take into account the uniqueness of each applicant's background and life experiences in addition to academic records.

### **TRANSFER CANDIDATES**

The Office of Transfer Affairs, a division of the Admissions Office, coordinates the evaluation and admission of transfer candidates to the University. Applicants who have attempted twelve semester hours of credit or more beyond the secondary school level are classified as transfer candidates and must submit their collegiate transcripts together with secondary school and SAT records. Transfer candidates who have earned 30 or more semester hours of credit may forego submitting their secondary school and SAT records. Credit for previous collegiate study is granted for 'C' grades or better in courses that are generally applicable to those offered in the student's degree program at the University of Southern Maine. Students applying for transfer from non-accredited institutions must have earned a minimum 2.75 average (on a 4.0 scale) to be considered for admission. The Admissions Office, in conjunction with the dean of a particular school or college within the University may defer for one semester the acceptance of credit from a non-accredited institution.

Special procedures for transfer students from within the University of Maine system:

- a. Applications may be procured at the Admissions Office of any University of Maine campus. Transcripts are sent from the sending campus to the Admissions Office at no cost to the student; however, students must request that the transcript be sent.
- b. Students must have a minimum GPA of 2.0 (on a 4.0 scale) in a parallel degree program for transfer consideration to this campus.
- c. Transfer credit will be awarded for all courses in Liberal Studies or a University parallel program. A grade of 'B' or better must be earned in General Studies or nonparallel programs from other University of Maine campuses.
- d. 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.

### **READMISSION CANDIDATES**

Students enrolled in degree programs who either formally withdraw or who simply fail to register for a particular semester maintain their enrolled or matriculated status for one academic year from the fifth class day of the next regular academic term. If the student wishes to register during that time, no readmission process is required; they

may register through the Registrar's Office. If the non-registered time period is longer than one academic year, an application for readmission must be filed with the Admissions Office. Readmission following academic suspension generally requires the approval of the academic dean from the suspending school or college.

### **SPECIAL STUDENT CANDIDATES**

The University of Southern Maine encourages the local community to take advantage of the many diverse course offerings of the University. Regular academic courses for self interest and enrichment are available through the classification 'special student.' By University definition a special student is one not enrolled in a degree program of study.

Special students are enrolled each semester on a space available basis. Those special students interested in pursuing course work toward a degree at the University as special students are required to contact the Advising and Information Department, Payson Smith Hall, on the Portland campus to discuss appropriate course selection and scheduling. Special students enrolled at the University are ineligible to be considered for campus-based financial aid. However, bank loans for educational purposes based on at least half-time University enrollment (6 credits) may be investigated by interested applicants.

### **INTERNATIONAL STUDENTS**

Due to limitations on financial assistance, applications are encouraged only from those international students who are able to fully fund 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. Candidates from foreign countries whose native language is not English are required to submit test results of the TOEFL examination (Test of English as a Foreign Language). In addition, candidates must submit test results of the Scholastic Aptitude Test (SAT). Candidates who have completed at least one year of University studies at an English-speaking University with acceptable grades are not required to take the SAT examination. They must, however, take the TOEFL examination if English is not the native language. For September 1983 admission, all international student admission credentials must be filed with the Admissions Office no later than April 15, 1983.

### **PHYSICALLY HANDICAPPED STUDENTS**

Traditionally, the handicapped student has been denied many educational opportunities due to physical barriers and discriminatory attitudes. The University is committed to maximizing the educational potential of handicapped students by providing the opportunity and support to fulfill their aspirations of higher learning.

For detailed information, handicapped students should contact the Coordinator for Handicapped Student Services who is located in Payson Smith Hall on the Portland Campus.

### **COLLEGE OF ARTS AND SCIENCES EARLY ADMISSION PROGRAM**

The Early Admission Program in the College of Arts and Sciences provides the opportunity for selected students who have completed their junior year of high school to enter the University as fully matriculated University freshmen. The Early Admission Program has been designed for students who display both the intellectual capacity and social maturity to succeed in a university program.

Students who wish to receive their high school diploma after the completion of one year in the Early Admission Program must obtain the prior approval of their high school guidance director or principal. Students expecting to receive their high 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 twenty percent of his/her high school class at the end of the junior year. Course work 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 one 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 admission purposes.

Interested applicants should confer with their high 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, Gorham, Maine 04038.

The Admissions Office in cooperation with the Academic Dean's Office in the College of Arts and Science 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 most Early Admission Program applicants will apply for the fall semester. Application forms must be submitted as early as possible. For fall semester, all Early Admissions applications should be received by April 15.

## SPECIFIC PROGRAM REQUIREMENTS

**Art**—Candidates applying as freshmen to the Department of Art *do not* submit a portfolio. In their freshman year they are considered ART CANDIDATES and must complete the ART CORE courses (Design I & II, Drawing I & II, History of Art I & II). During the semester, while completing the ART CORE courses, ART CANDIDATES will be asked to submit a portfolio to be formally accepted as matriculated art students in the Department of Art. If the art portfolio is approved by the department and the ART CORE is successfully completed, the student will then be approved for the subsequent semester to continue as an art major.

Transfer students from other colleges who *have not* completed the ART CORE courses (or equivalent) should follow the instructions outlined above for freshmen. Transfer students who have completed the ART CORE courses are required to submit a portfolio in conjunction with their application. Portfolio dates for these students who have completed the ART CORE courses are available from the USM Department of Art, Robie-Andrews Hall, Gorham, Maine 780-5460.

**Music**—All candidates for the music major will be asked to appear before the faculty of the Music Department for an instrumental or vocal audition. A written music achievement test will also be administered. Students will be notified by the Music Department of the appropriate procedure to follow and the dates available for on-campus visitations. Candidates are invited to attend classes with the department and to discuss the music curriculum with faculty and students.

**Industrial Arts**—Applicants for the industrial arts program will be invited to the Industrial Education Center for a tour of the facility, interviews with the faculty and testing of mechanical comprehension. Students will be notified by the Industrial Arts Coordinator of the appropriate procedure to follow and the dates available for on-campus visits.

**Industrial Technology**—Applicants for the Industrial Technology program should contact Mr. Richard Carter at the University for an appointment for an interview.

**Vocational-Occupational Education**—Applicants for the vocational-occupational education program are required to submit affidavits of a minimum of three years of occupational experience and appear for a personal interview. Candidates should contact Dr. Arthur Berry at the University for an appointment to discuss the evaluation of prior work experience in the vocational/technical field.

**Nursing**—Please refer to the School of Nursing section of this catalog for admissions information.

## ADMISSIONS DECISIONS

### REGULAR ACCEPTANCE

Admission to the University is based primarily on the candidate's academic background. The rigor of the secondary school program and the grades achieved are the basis for the admissions decision. Scholastic Aptitude Test scores as well as individual talents and activities also influence the final decision. Evaluations of transfer candidates will emphasize their most recent college grades.

Admissions decisions are made on a 'rolling' basis. Therefore, applications are evaluated shortly after they are submitted and all appropriate transcripts and test scores are received. It is the responsibility of the candidate to arrange for the Admissions Office to receive these credentials. All candidates are urged to complete the application process by December 15 for spring semester entrance and by June 1 for fall semester entrance.

### ACCEPTANCE WITH CONDITIONS

Conditional admission status exists for both freshman and transfer candidates who show significant academic promise, but whose credentials reflect a deficiency in course selection, test scores, or grades. Students in this category are fully admitted and pursue their first year of academic work under the guidance of the Advising and Information Department. Normally, conditionally admitted students take fewer than five courses per semester.

Students admitted on a conditional basis to associate and bachelor's degree programs have up to five and six semesters respectively to attain regular status.

Transition to regular status may be initiated through the student's assigned academic counselor. The student must complete the University's proficiency requirements and a minimum of 15 credit hours of graded, non-remedial coursework with a grade point average placing the student in good standing. The Coordinator of Academic Counseling may approve transition to regular status prior to completion of 15 credit hours if the student earns an exceptional grade point average.

## ADVISING AND INFORMATION

The Advising and Information Department (AID) provides academic counseling and advising services for students undecided as to their majors, degree candidates who are admitted on a conditional basis, pre-nursing program candidates, and non-degree students. Additionally, AID coordinates the initial academic advising and enrollment of all new degree students.

The Advising and Information Department assists students with the development of their academic and vocational interests. The academic counseling staff is available to students who wish to share their academic background, previous job training, work and leisure activities and other life experiences for the purpose of establishing some future direction which may include a program in higher education.

The department provides academic advising to help students make decisions regarding the school/college which they will enter, the curriculum or major they plan to pursue and the selection of appropriate courses.

AID is also a resource to students as an academic and general University information center. When appropriate, AID staff will make referrals to other offices which can provide more detailed information or more complete service.

Veterans services are part of the Advising and Information Department and provide advice and certification regarding V.A. benefits, information on work-study and tutorial assistance, etc. Other responsibilities include counseling, outreach, recruitment and special education for veterans.

## CREDIT BY EXAMINATION

### ADVANCED PLACEMENT

Credit is granted for the introductory course in a subject field to an enrolled student who presents evidence of competency in that field by completing the appropriate Advanced Placement Examination of the College Entrance Examination Board. A score of three or better is required by the University for advanced placement credit.

### COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

#### 1. General Examination

The schools and colleges at the University of Southern Maine will grant credit for a score of 500 or higher on the general College Level Examination Program (CLEP) examinations as follows:

Title of Examination	Credit Hours	Credit for
English	3	ENG 100
Humanities	6	General Education
Social Science	6	General Education
Mathematics	6	General Education
Science	6	General Education

The five general examinations are designed and intended primarily for incoming freshmen rather than for typical transfer students with advanced standing credit at the introductory level.

#### 2. Subject Examination (CLEP)

##### College of Arts and Sciences

The following Departments—Biological Sciences, Economics, English, History, Mathematics/Computer Science, Political Science, Psychology, and Sociology—have established policies relative to the acceptance of CLEP subject credit. Interested candidates should contact the Dean of the College of Arts and Sciences for detailed information.

##### School of Business, Economics and Management

The School of Business, Economics and Management will accept satisfactory completion of CLEP subject examinations and allow credit toward the completion of degree requirements. Interested candidates should discuss their eligibility for taking these examinations with the Dean of the School of Business, Economics, and Management.

##### School of Nursing

Available for advanced placement is credit earned for any prerequisite courses for the upper division nursing major in subject examinations offered through CLEP. For more information candidates should contact the Office of Counseling and Career Development.

##### College of Education

The College of Education will accept satisfactory completion of CLEP subject examinations and allow credit toward the completion of degree requirements. Interested candidates should discuss their eligibility for taking these examinations with the Dean of the College of Education.

# Programs of Study

## BACCALAUREATE DEGREE PROGRAMS

### College of Arts and Sciences

Applied Chemistry (B.A. degree or B.S. degree)  
Applied Music  
Art (B.A. degree)  
Art (B.F.A. degree)  
Biology, including Pre-Med, Pre-Dental and Pre-Vet.  
Communication  
Computer Science  
Criminal Justice  
Earth Science  
Economics  
English  
French  
Geology  
Geography-Anthropology  
History  
Liberal Studies\*  
Mathematics  
Mathematics  
Music  
Philosophy  
Physics and Engineering  
Political Science  
Psychology  
Self-designed major\*\*  
Social Science  
Sociology  
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 made by the Committee on Self-Designed majors after students have enrolled at the University.

### Engineering

This University offers the first year of the four-year program common to all engineering majors (with the exception of electrical engineering), and the first and second years in engineering physics. These offerings meet the general requirements of the corresponding programs at the University of Maine at Orono. Preferred transfer consideration to UMO is extended to Maine residents.

### College of Education

The College of Education currently offers four-year programs leading to the degree of Bachelor of Science.

Programs of the College of Education:

Art Education (certification, K-12)  
Early Childhood  
Elementary Education  
Industrial Arts Education (certification, K-12)  
Industrial Technology (non-teaching program)  
Music Education (certification, K-12)  
Therapeutic Recreation (non-teaching program)  
Vocational/Occupational Education (teaching program)  
Vocational Technology (non-teaching program)  
Secondary Education Mathematics\*

For more information refer to the College of Education section of this catalog.

\*See mathematics and computer science information under College of Arts and Sciences.



## School of Nursing

The School of Nursing offers a baccalaureate program with an upper division major in nursing. The program leads to the degree of Bachelor of Science with a major in nursing. For more information refer to the School of Nursing section of this catalog.

## School of Business, Economics and Management

The School of Business, Economics and Management offers a four-year program leading to the degree of Bachelor of Science in Business Administration with majors available in business administration and accounting. The Bachelor of Science degree with a major in economics is also available. The School also offers a Master of Business Administration degree.

For more information refer to the School of Business, Economics and Management section of this catalog.

# ASSOCIATE DEGREE PROGRAMS

## School of Business, Economics and Management

The School of Business, Economics and Management offers a two-year program leading to the degree of Associate of Science in Business Administration. Students in this program may pursue a management/accounting option, a hotel, motel, restaurant management option, or a real estate option.

## College of Education

The College of Education, through the Department of Human Resource Development, offers a two-year program leading to the associate degree in therapeutic recreation. Candidates who successfully complete this program have opportunities for employment in nursing homes, homes for the elderly, agencies for the handicapped, rehabilitation centers, and appropriate programs offered by human service agencies, camps, parks, and playgrounds.

## Division of Basic Studies

The Division of Basic Studies offers two-year associate degree programs in Selected Studies, and Human Services through learning centers located in Saco, Sanford, York and at the In-Town Learning Center at 68 High Street in Portland. The Sanford and Saco centers are known also as York County Community College Services and constitute a cooperative effort of USM and SMVTI (Southern Maine Vocational Technical Institute) to extend associate degree programs and courses to citizens throughout southern Maine.

For further information refer to the Division of Basic Studies section of the catalog.

# 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 twenty-five 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 USM in the New England Regional Student Program for 1982-83. The 1983-84 listing will be available from the New England Board of Higher Education during the fall of 1982. Check with your guidance counselor or the Board at 68 Walnut Road, Wenham, Massachusetts 01984.

**PROGRAM:** ..... **OPEN IN 1981 TO STUDENTS FROM:**

**Two-Year Majors**

Business Administration ..... Conn., Mass., VT., R.I.  
Therapeutic Recreation ..... Conn., Mass., N.H., R.I., VT.

**Four-Year Majors**

Art Education ..... Conn., R.I.  
Criminal Justice ..... Conn., N.H., R.I., VT.  
Industrial Technology ..... Conn., R.I.  
Industrial Arts Education ..... Conn., R.I.  
Social Welfare ..... Conn., Mass., R.I.  
Therapeutic Recreation ..... N.H., R.I., VT.

# Financial Information

## Academic Year 1982-83

The financial requirements of the University, changing costs, state and legislative action, and other matters may require an adjustment of these charges and expenses. The University reserves the right to make adjustments to the estimated charges and expenses as may from time to time be necessary in the opinion of the Board of Trustees up to the date of final registration for a given academic term. The applicant acknowledges this reservation by the submission of an application for admission or by registration.

### SCHEDULE OF EXPENSES

**APPLICATION FEE** - An Application Fee of \$15.00 must accompany each application at each campus unless the student has previously matriculated at this campus.

**MATRICULATION FEE** - A one-time fee of \$15.00 for each student who elects to pursue a degree program within the University of Maine.

**NEW STUDENT ADVISING AND ORIENTATION FEE** - A one-time fee of \$15.00 is required of all new students.

#### **STUDENT ACTIVITY FEE (Compulsory)**

Undergraduate students taking 6-12 credit hours are required to pay a \$6.00 Student Activity Fee. Students Taking 12 or more credit hours are required to pay \$12.00. This fee is charged each semester.

### TUITION CHARGES

<b>Undergraduate Tuition</b>	<b>Semester</b>	<b>Year</b>
Maine Resident - \$47.00 per credit hour; 15 or more credit hours	\$ 705.00	\$1,410.00
Non-Resident - \$140.00 per credit hour; 15 or more credit hours	\$2,100.00	\$4,200.00
New England Program - \$58.75 per credit hour; 15 or more credit hours	\$ 881.25	\$1,762.50
<b>Graduate Tuition</b>		
Maine Resident - \$54.00 per credit hour; 15 or more credit hours	\$ 810.00	\$1,620.00
Non-Resident - \$161.00 per credit hour; 15 or more credit hours	\$2,415.00	\$4,830.00

### ROOM AND BOARD CHARGES

Double Room and Board (19-meal plan)	\$1,157.50	\$2,315.00
Single Room and Board (19-meal plan)	\$1,232.50	\$2,465.00

Optional meal plans available for off-campus students.

### OTHER CHARGES

#### **Yearbook (Optional)**

Students may elect this optional fee with their fall semester bill.

#### **USM Health Sources Fee and Insurance Package (Optional)**

This optional fee is available to all students who are carrying at least three credit hours. Students may elect this fee of \$85.00 per year (includes \$40 USM Health Service Fee and \$45 Insurance Fee) with their fall semester bill.

#### **Student Health Services Fee (Optional)**

Students may elect this fee of \$40.00 per year with their Fall Semester bill. This service may be purchased independently of the Insurance Package

**Late Fee**

A late fee of \$25.00 is charged to all students who register after the prescribed day of registration or who fail to satisfy their financial obligations with the business office when due and payable. This fee will also be assessed to students whose registration checks are returned and not cleared by the specified deadline.

**Books and Supplies**

The cost of books and supplies varies according to the course for which a student is registered. Books and supplies are not billed on the semester invoice. Payment for them must be made directly to the bookstore at the time of purchase.

**Applied Music Fees**

The fees are indicated in the Music section of the catalog.

**Commencement Fee**

A one-time fee (\$10.00) for each degree candidate, to be paid six weeks prior to the commencement.

## TUITION FOR OTHER CLASSIFICATIONS OF STUDENTS

*Auditing of Courses* - Tuition and Fees are charged for audited courses at the usual hourly rate, except for a student who is already paying the maximum tuition.

*Adding Courses* - All 'adds' must be paid for at the time of the 'add' if it results in an additional tuition charge. The \$25.00 late fee will apply if not done so.

*Tuition and Fee Grants* - Tuition and fee grants will be restricted to those specifically authorized by the Board of Trustees and include tuition grants for Maine residents over sixty-five who wish to register for undergraduate courses at any campus of the University of Maine.

## DEPOSITS

A deposit of \$25 is due when the applicant is notified of acceptance by the Director of Admissions. If a residence hall room is requested, an additional \$50 is due. These deposits will be applied toward the student's account when the student registers, and are subject to the refund policy listed below.

The deposits are forfeited if an applicant withdraws after June 1 for the fall semester or after January 1 for the spring semester. If a freshman, transfer, or readmission applicant notifies the Director of Admissions of withdrawal prior to June 1 for September enrollment or January 1 for spring semester, the deposits will be refunded. Notification must be in writing.

Students desiring to live in a residence hall must pay a room deposit of \$50 during the spring in order to assure that rooms will be reserved for them in the fall. The deposit will be applied to the fall semester bill. If it is found that residence hall accommodations are not desired, the deposit will be refunded if the Office of Residence Life is notified by June 1. After June 1, the \$50 is non-refundable.

## PAYMENT OF BILLS

Students who preregister may receive a bill through the mail. However, the University is not obligated to send out such a bill. The student is responsible for paying fees in full or complete financial arrangements as noted below by the appropriate due date stated in this catalog or registration instructions. Failure to do so will result in the student being assessed the \$25.00 late fee.

**All University Bills**, including those for room and board in University buildings, are due and payable on or before September 7 for the fall semester and on or before January 10 for the spring semester. Bills may be paid at the business office at either campus by mail or in person. Checks should be made payable to **University of Maine**.

**Returned Check:** A \$5.00 penalty is imposed if any institutional charges are paid by check which is returned because of an irregularity for which the person submitting it is responsible.

Scholarships and grants, *other than University awards*, which are to be used for tuition payments, should be confirmed with the Business Office on or before the first day of classes in order to receive proper credit against outstanding bills and to avoid a \$25 late fee.

Students not on an authorized deferred payment of fees plan and who have not paid their tuition and fees in full by the due date, may have their registration for that semester cancelled. This means specifically that a student will receive no credit for any courses taken during that semester. Students who are allowed to register in error may have their registrations cancelled. Any fees paid by that student will be refunded to the student or credited against other charges due the University by that student.

Transcripts of records and/or permission to register for succeeding semesters will be withheld from students who have not paid all bills and all loans due the University or who have not made arrangements for proper settlement. Included among these bills are damage to University property, charges or fines owed for violation of the University Motor Vehicle Regulations, and library fines.

## INSTALLMENT PROGRAM

Students whose circumstances are such that payments of their semester bill in full at the time prescribed would work a real hardship, will be permitted to use the installment program.

The program requires that one half of the semester bill, plus any previous balance and a non-refundable \$10.00 **FINANCE CHARGE**, be paid at the time prescribed above. The balance is to be paid in three consecutive monthly installments commencing 30 days after the first day of semester classes.

The privilege of using the program will be withdrawn and the full balance will be immediately due and payable if payments are not made promptly as scheduled. A student must be registered for a minimum of six credit hours at USM in order to use this plan.

## REFUND POLICY

Student charges will be refunded to students *who are withdrawing from the University of Maine* in accordance with the schedules and provisions set forth below.

### A. TUITION REFUNDS

For purposes of calculating tuition refunds, the attendance period begins on the opening day of scheduled campus classes, includes weekends and holidays, and ends on the date the student notifies the Registrar in writing.

#### 1. SCHEDULES

##### a. ACADEMIC YEAR (Fall & Spring Term)

	<i>Refund Percentage</i>
Cancellation prior to First Day of Class	100%
Withdrawal prior to End of First Week	100%
Withdrawal prior to End of Second Week	75%
Withdrawal prior to End of Third Week	50%
Withdrawal prior to End of Fourth Week	25%
Withdrawal after Fourth Week	0%

##### b. OTHER SESSIONS

(1) Sessions which are more than three weeks	
Cancellation prior to First Day of Class	100%
Withdrawal prior to End of First Week	75%
Withdrawal prior to End of Second Week	50%
Withdrawal prior to End of Third Week	25%
Withdrawal after Third Week	0%
(2) Sessions which are three weeks or less	
Cancellation prior to First Day of Class	100%
Withdrawal prior to First Day of Class	50%
Withdrawal after First Week	0%

#### 2. PROVISIONS

- a. No part of an **advance deposit** is refundable after June 1. Although such deposits are applicable to tuition charges for students who remain enrolled, they are **forfeited by students who withdraw**.
- b. In no case will tuition be reduced or refunded because of voluntary absence from classes.
- c. Refunds for involuntary withdrawals, e.g., extended illness or military service, will be considered by the campus on a case-by-case basis.
- d. University fees are not refunded, including the Student Activity fee.

## B. ROOM REFUNDS

For purposes of calculating room refunds the attendance period begins on the opening day of scheduled campus classes, includes weekends and holidays, and ends on the date the student provides written notification.

### 1. SCHEDULES

a. ACADEMIC YEAR (Fall & Spring Terms)	<i>Refund Percentage</i>
Cancellation prior to First Day of Class	100%
Withdrawal prior to End of First Week	100%
Withdrawal prior to End of Second Week	75%
Withdrawal prior to End of Third Week	50%
Withdrawal prior to End of Fourth Week	25%
Withdrawal after Fourth Week	0%
b. OTHER SESSIONS	
(1) Sessions which are more than three weeks	Cancellation prior to First Day of Class 100%
Withdrawal prior to End of First Week	75%
Withdrawal prior to End of Second Week	50%
Withdrawal prior to End of Third Week	25%
Withdrawal after Third Week	0%
(2) Sessions which are three weeks or less	Cancellation prior to First Day of Class 100%
Withdrawal prior to End of First Week	50%
Withdrawal after First Week	0%

### 2. PROVISIONS

- No part of an **advance deposit** is refundable after June 1. Although such deposits are applicable to room charges for students who remain in the dormitory, they are **forfeited for students who withdraw**.
- This room refund policy pertains to students who are withdrawing from the University of Maine. Refunds, if any, for students who remain enrolled but vacate a dormitory room will be governed by their terms and conditions of campus residence hall contracts.
- Refunds for involuntary withdrawals, e.g., extended illness or military service, will be considered by the campus on a case-by-case basis.

## C. BOARD REFUNDS

Students who withdraw from the University will be charged for meals at the established daily rate through the date of clearance.

### ADD/DROP

Students may **drop courses** during the first two weeks of classes\* without incurring any financial obligation for tuition charges. However, students will be responsible for any non-refundable fees which may include, but not limited to, registration fee, activity fee and lab fee(s). After this time, no adjustment to tuition charges for courses dropped will be made. For students who withdraw from the University, the 'Refund Policy' is applicable.

All **courses added** must be paid for at the time of the add unless the maximum charge is applicable or the tuition charge is offset by a drop during the first two weeks of classes in order to avoid a \$25 late fee.

\*For purposes of calculation of tuition refunds, the attendance period begins on the opening day of scheduled campus classes, includes weekends and holidays and ends on the date the student notifies the Registrar in writing.

### RULES GOVERNING RESIDENCE

A student is classified as a resident or a non-resident for tuition purposes at time of admission to the University. The decision, made by the appropriate campus Business Manager, is based upon information furnished by the student's application and any other relevant information. No student once having registered as an out-of-state student is eligible for resident classification in the University, or in any college thereof, unless the student has

been a bona fide domiciliary of the state for at least a year immediately prior to registration for the term for which resident status is claimed. This requirement does not prejudice the right of a student admitted on a non-resident basis to be placed thereafter on a resident basis provided the student has acquired a bona fide domicile of a year's duration within the state. Attendance at the University neither constitutes nor necessarily precludes the acquisition of such a domicile. For University purposes, a student does not acquire a domicile in Maine until the student has been here for at least a year primarily as a permanent resident and not merely as a student; this involves the probability of a student's remaining in Maine beyond the student's completion of school. In general, members of the Armed Forces and their dependents are normally granted in-state tuition rates during the period when they are on active duty within the State of Maine.

Subject to the provisions of the preceding paragraph, the **domicile** of an unmarried minor follows that of the parents or legally appointed guardian. The bona fide year-round **domicile** of the father, if living, otherwise that of the mother, is the **domicile** of such a minor; but if the father and the mother have separate places of residence, the minor takes the domicile of the parent with whom the minor lives or to whom the minor has been assigned by court order. If neither of the parents is living, the unmarried minor takes the **domicile** of the legally appointed guardian.

Subject to the provisions of the first paragraph above, an adult student, defined for the purposes of these rules as one who is either married or **eighteen** years of age or older, will be classified as a resident of Maine if **the student has completed twelve continuous months of domicile in Maine immediately preceding registration for the term for which resident status is claimed.**

Subject to the provisions of the first paragraph above, if a non-resident student has a spouse who has a residence in Maine, the student shall be deemed to have a residence in Maine.

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

- A. Submit 'Request for Change of Residence Status' form to the Business Manager. If the Business Manager's decision is considered incorrect:
- B. The student may appeal the Business Manager's decision in the following order:
  1. Executive Director of Budget and Institutional Research
  2. President
  3. Vice Chancellor for Business and Financial Affairs, University of Maine, Chancellor's Office (This decision must be considered final.)

In the event that the campus Business Manager possesses facts or information indicating a change of status from resident to non-resident, the student shall be informed in writing of the change of status and will be given an opportunity to present facts in opposition to the change. The student may appeal the Business Manager's decision as set forth in the preceding paragraph.

No applications will be considered for changes after September 1, for the fall semester and January 1, for the spring semester.

All changes approved during a semester will be effective at the beginning of the next semester; none are retroactive.

In all cases, the University reserves the right to make the final decision as to resident status for tuition purposes.

# Student Financial Aid

## GENERAL INFORMATION

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.

USM helps students overcome this obstacle by offering various forms of financial aid. During the 1981-82 academic year, over 2,850 students received an average of \$2,100 from aid programs at USM. In addition, USM helped 2,700 students obtain in excess of 6.5 million dollars in low-interest student loans from commercial lenders and, through the Job Locator program, helped more than 115 students find off-campus employment where they earned in excess of \$100,000. Students may also elect to participate in the Reserve Officers Training Corps (ROTC) program to secure funds for their junior and senior year (\$100 per month) and a commission in the United States Army upon graduation.

## ELIGIBILITY FOR AID FROM USM

USM offers financial aid to needy students. Financial need exists when the student and his/her family lack the funds needed to pay college costs.

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

No student should fail to apply for admission because she/he cannot pay the full cost of 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 USM, 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, 1983. Many find it convenient to apply at the same time a federal income tax return is completed.

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 under age 26 must have a parent sign the FAF. If the student is dependent, this attests to the accuracy of the parent's financial information. If the student is independent, the signature certifies this. Students and parents may be 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 (formerly Basic) Grant. Students may also use the FAF to apply for state scholarships.

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

USM begins reviewing student aid applications in early spring. Once a student is accepted by the Admissions Office, a completed FAF is received and USM is told how much federal aid it will have for students, a notice of eligibility is sent. This first notice is an estimate of the amount of financial aid the student will receive from USM. If a student receives outside scholarship funds, the amount of aid from USM may have to be reduced. An award notice, detailing the exact types of aid, is sent in mid-summer.

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 should promptly report any of the following to the Student Financial Aid Office:

- 1) a change in income
- 2) a change in marital status
- 3) a change in the number of dependents
- 4) a change in residence
- 5) a change in the number of credit hours attempted; and 6) the receipt of financial aid from sources other than USM.

Students are offered aid in a package which may consist of grant and/or loan and/or work-study. Only students who have not yet earned a Bachelor's Degree are eligible for grant funds. Students who have a Bachelor's Degree may receive only loan and work-study funds.

## **TYPES OF AID AVAILABLE**

### **Pell (formerly Basic) Grants**

A federally-funded program to help needy students. Grants vary between \$150 and \$1,800 per academic year.

### **Supplemental Educational Opportunity Grants**

A federally-funded program to help needy students. Grants range from \$200 to \$2,000 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**

A program funded by USM and the federal government. Eligible students may earn between \$400 and \$2,000 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, minimum of \$50 must be repaid each month.

### **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**

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

### **Guaranteed Parent Loans**

A program sponsored by the federal and state governments that 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**

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.

## **FOR ADDITIONAL INFORMATION**

Contact the Office of Student Financial Aid, USM, Corthell Hall - 2nd Floor, College Avenue, Gorham, Maine 04038 or telephone 207-780-5250.

## **DISCLAIMER**

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



# Academic Policies

The graduation requirements listed in this section are in effect and apply to the 1982-83 academic year and apply to all entering freshmen and transfers with less than 30 credits. Transfer students with 30 or more credits must meet the graduation requirements listed in the 1981-82 catalog.

## REQUIREMENTS FOR ALL BACCALAUREATE DEGREE CANDIDATES

Evidence of minimum proficiencies for effective college study, (no credit). Every baccalaureate degree student who is admitted to the University of Southern Maine must produce evidence of a minimum writing proficiency and a minimum mathematics proficiency. Students who do not submit such evidence must register for the appropriate English and/or Mathematics proficiency course as part of their total course load at the time of their initial registration. As a result of testing in these courses, a student may be placed in a different level course. Failure to satisfy this proficiency will require special advising for future registration. Transfer students who meet the USM basic competence requirement will be considered to have satisfied the proficiency requirement.

- A. Evidence of Writing Proficiency DO ONE
  - 1. Score 43 or above on TSWE
  - 2. Pass a standardized locally administered examination in English writing.
  - 3. Successfully complete ENG 009 or 010.
- B. Evidence of Mathematics Proficiency DO ONE
  - 1. Score 450 or above on the SAT mathematics subtest.
  - 2. Pass a standardized locally administered examination in Mathematics.
  - 3. Successfully complete MS 011.

## CORE CURRICULUM

The new CORE Curriculum replaces the former General Education Requirements for students entering the University in or after the Fall of 1982. Where, in the description of a specific academic program, reference is made to "General Education Requirements," students should substitute the term "CORE Curriculum."

The Core Curriculum at the University of Southern Maine offers an integrative, holistic plan of study whose purpose is to develop scholars who are self-directed learners and are committed to intellectual, moral and aesthetic advance. To this end the Core Curriculum focuses on three aspects of education: basic competence, specific areas of inquiry, and integration of knowledge.

The **BASIC COMPETENCE** requirement stresses the development of skills of communication—verbal, visual, and other symbolologies; skills of quantitative decision making; and skills of logical analysis. The basic competence requirements in English composition, in quantitative decision making, and in reasoning, for a maximum of nine credit hours, must be met by all students.

The part of the curriculum entitled **METHODS OF INQUIRY/WAYS OF KNOWING** adds breadth and content to the Core Curriculum. Through courses in this area students can explore many of the diverse ways in which experience is viewed. Each course will help a student to define the unique ways in which that particular discipline describes human experience. By taking courses in the various disciplines students can identify different methodologies and define relationships between the diverse ways of understanding human experience. These courses seek to develop a student's ability to think and analyze independently, to identify the major sources of knowledge about the discipline, and to alert a student to ethical or philosophical issues inherent in the discipline. This requirement consists of 22 semester hours selected from the major areas of Fine Arts, Humanities, Social Sciences, and Natural Sciences. The specific distributions are listed below. Courses completed in a student's major department may not be used by that student to fulfill a Core Curriculum requirement in the area of Methods of Inquiry/Ways of Knowing, although Core Curriculum courses may be used with electives to complete a minor concentration.

The **INTERDISCIPLINARY** requirement of the Core Curriculum emphasizes the interrelatedness of knowledge to counteract a fragmented view of experience which may occur as a result of departmental structure. The central purpose of an interdisciplinary course is to integrate skills, knowledge, and understanding across traditional discipline lines as the course focuses on a specific region, a major event, or an important issue. The requirement consists of 6 semester hours, 3 at the introductory (freshman) level and 3 at the senior level. The introductory level interdisciplinary requirement must be satisfied by all students entering USM with less than 60 semester hours.

Students who fail to meet any of these requirements within the specified limits given below cannot register for additional courses unless they are concurrently registered for the required course or courses.

The USM Core Curriculum requirements are briefly summarized as follows:

- 1. The introductory interdisciplinary course requirement must be satisfied in the first year at USM.
- 2. The English composition, the quantitative decision making, and the reasoning requirement must be

satisfied before completion of 60 credit hours. Transfer students entering USM with more than 60 credit hours will be given special advising.

3. The Methods of Inquiry/Ways of Knowing and the senior seminar requirement must be completed before graduation.

## CORE REQUIREMENTS 1982-1983

### I. BASIC COMPETENCE (3, 6, or 9 credit hours)

Every student must satisfy the basic competence requirement before completion of 60 credit hours. Any student who has not completed this requirement by the end of the sophomore year will be given special advising before being allowed to register for additional courses.

- |           |   |                     |
|-----------|---|---------------------|
| <b>A.</b> | English Composition — DO ONE  | 3 or 0 credit hours |
|           | 1. Eng 100 or 101   | 3                   |
|           | 2. Score 59 or better on TSWE   | 0                   |
|           | 3. Score 500 or better on CLEP English test   | 3                   |
|           | 4. Satisfy composition standards by second week in ENG 100 or 101                                       | 0                   |
| <b>B.</b> | Quantitative Decision Making — DO ONE   | 3 or 0 credit hours |
|           | 1. MS 100 or above  | 3                   |
|           | 2. Computer: BUS 390, CS 100, CS 160  | 3                   |
|           | 3. Statistics: MS 120, PSY 201, SOC 307   | 3                   |
|           | 4. Pass a locally administered examination  | 0                   |
| <b>C.</b> | Reasoning — DO ONE  | 3 credit hours      |
|           | 1. PLY 100-level course   |                     |
|           | 2. A course in reasoning  |                     |
|           | A list of courses which satisfies this requirement will be published prior to each registration period. |                     |

### II. METHODS OF INQUIRY/WAYS OF KNOWING

22 credit hours

The courses which may be applied to each area noted in this section may be drawn from the various schools and colleges in the University. The list of such courses will be determined by the Core Council and the updated list will be published at the beginning of each registration period.

#### A. FINE ARTS DO ONE EACH

6 credit hours

A course in the fine arts seeks to vitalize the spirit and prepare an individual to participate intelligently in an aesthetic experience.

1. Performance-centered arts course 3 credits  
A performance centered arts course emphasizes understanding an art through active participation in the art form.
2. History-centered arts course 3 credits  
A history-centered arts course emphasizes understanding an art through an exploration of significant works of the art in a historical context.

The two courses in the Fine Arts must be selected from different departments.

#### B. HUMANITIES DO ONE EACH

6 credit hours

A course in the humanities helps students to understand, interpret and criticize the acts and creative works of humankind.

1. Literature 3 credits  
A course in literature makes students aware of the richness of the written word as an expression of human ideals, aspirations, observations and reflections.
2. Other Times/Other Cultures 3 credits  
A course in other times/other cultures offers students an understanding of our links with the past and provides a perspective on our own culture by comparison and contrast with other cultures.

The two courses in the Humanities must have different course prefixes.

#### C. SOCIAL SCIENCES

6 credit hours

A course in the social sciences exposes the student to ways of describing, analyzing, and evaluating the fundamental social institutions, behavior patterns, and issues of societies and their individual members.

The two courses in the Social Sciences must be selected from different departments.

#### D. NATURAL SCIENCES

4 credit hours

A course in the natural sciences enables students through lecture and laboratory to appreciate the nature of science and its accomplishments and helps them to live and participate effectively in a technological society.

### III. INTERDISCIPLINARY COURSES

3 credit hours

#### A. Introductory CORE 100-level

Every student with less than 60 semester hours must complete a CORE 100 level interdisciplinary course in the first year of study at the University. To facilitate scheduling, each student will be assigned to take a course in either the fall or spring semester; however, the student can choose the particular interdisciplinary course on a first-come, first-served basis in the given semester. Each interdisciplinary course will satisfy one of the requirements in II—Methods of Inquiry/Ways of Knowing, or I—the Basic Competence in Reasoning; exact designation will be listed at the time of registration. The interdisciplinary courses will be approved by the Core Council and the list of such courses will be published prior to each registration period.

#### B. Senior Seminar

Specific details to be developed during the 1982-1983 academic year.

### USM SYSTEM OF 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 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.).
2. All courses carrying number 010-099 carry credit and quality points toward an associate degree.
3. Matriculated baccalaureate students should not register for courses with numbers less than 100.
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 GPA for transfer into a four-year program. Generally up to 60 credits (but not quality points) of courses numbered 010-099 with grades C or better may be included towards a baccalaureate degree at the discretion of the dean.

### ATTENDANCE POLICY

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

### EXAMINATION POLICY

The examination policy states that it is the responsibility of the individual 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. A time for make-up exams is also scheduled. Take-home exams are also due within the final exam period.

By action of the USM 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.

### 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.

### REGISTRATION

The registration process is conducted by the Registrar, Advising and Information Department (AID) and Business Office. It includes selection of courses, completion of proper forms and payment of University charges.

Newly admitted students are notified by the Admissions Office of their orientation, advising and registration schedule. The Advising and Information Department coordinates the new student academic advising and initiates the registration procedure by approving course schedules prior to processing by the Registrar and Business Office.

Continuing degree students may preregister in priority order, based on the number of credits earned through the previous semester. Preregistration is conducted near the end of each semester for the following semester. Eligible students who fail to preregister must then wait until the open registration period which immediately precedes each semester. Non-degree students may register only during the open registration period. Degree students must obtain advisor approval prior to registration. Non-degree students must have approval from the Advising and Information Department prior to registration. No student may register for more than 18 credits in one semester without the permission of the advisor and dean. No registration is complete unless all related financial obligations to the University are satisfied.

## THE GRADING SYSTEM

Grades at the University are given in terms of letters, with the option of a "+" or "-" 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 paragraph on "Minimum Grade Policy" and "Repeating 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 course requirements. Incomplete grades "I" must be *resolved* by the end of each semester; the Registrar shall notify faculty members involved, and their department chairperson, 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" (failure) in the grade point average and so indicated on the student's permanent record. Under special circumstances, the instructor may request that the dean extend the time limit for a specific period.
- INC— Permanent Incomplete: When a temporary incomplete (I) grade is not resolved to a normal letter grade, a permanent incomplete may be assigned in extraordinary circumstances as determined by the instructor and the dean. In unusual circumstances wherein the faculty member is no longer available, the dean may exercise this function.
- 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, "MG," must be resolved by the end of each semester. The Registrar shall notify faculty members involved, and their departmental chairperson, of students who have carried unresolved "MG's" 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" (failure) 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 non-credit basis.

## 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 a course. At that time, the record becomes permanent and cannot be changed.

## 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 candidates with grade-point averages of 3.2 or better are placed on the Dean's List. Students listed in the Public Directory will have their names released to the news media.

## REPEAT COURSE POLICY

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.

## ADD-DROP POLICY

During the first week of a semester, students may add courses and select or reverse the Pass-Fail Option. A period of two weeks is permitted to drop courses with no grade notation. The 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 courses 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 that course and must assume all financial obligations associated with it.*

## UNSATISFACTORY PROGRESS POLICY

A student who is a degree candidate is expected to complete and pass the courses for which he/she is registered during a given semester. A student who fails or withdraws (W) from more than 2 courses during a semester may be placed on academic probation or suspended by the dean of the college, school or division.

## AUDIT POLICY

Students who register to audit a course receive no credit for the course but will have an audit grade recorded on their transcripts. Audit courses must be declared at registration.

## MINIMUM GRADE POLICY AND ACADEMIC SUSPENSION

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

	<b>Cumulative Minimum Grade-Point Averages</b>	
	<b>For Good Standing</b>	<b>For Probationary Standing</b>
<b>Associate Degree Programs</b>		
0-15 credit hours	1.60	1.35
16-30 credit hours	1.80	1.60
31-45 credit hours	2.00	1.80
<b>Baccalaureate Degree Programs</b>		
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. Student 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 chairman 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 USM either at the University of Southern Maine or at other institutions without permission of the dean of the suspending academic unit. Suspensions are imposed for a minimum 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 USM 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.

School of Nursing: please refer to the sections entitled Prerequisites to the Nursing Major and Academic Policies - Upper Division Nursing Major in the School of Nursing portion of this catalog.

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

### ACADEMIC DISMISSAL

Students academically suspended 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 quality academic coursework at another institution. For details about disciplinary dismissal, consult the "Disciplinary Code," published in the USM Student Handbook.

### CLASS MEMBERSHIP

Since a minimum of 120 credit hours is required for graduation in most four-year programs, at least 30 credit hours should be earned each year. To progress satisfactorily through college, a full-time student is expected to carry at least 15 credit hours each semester. Permission must be obtained from the advisor and the appropriate dean if a student wishes to carry more than 18 credits 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. Exceptions are the Industrial Arts Education and Industrial Arts Technology programs with respective percentages of 20 percent and 53 percent.

The requirements by classes, schools and colleges are:

	<b>Required Number of Credit hours</b>			<b>Total to Graduate</b>
	<b>Sophomore</b>	<b>Junior</b>	<b>Senior</b>	
Arts and Sciences	23	53	83	120
<b>Business, Economics and Management</b>				
Baccalaureate Programs	23	53	83	120
Two-Year Business	23	—	—	62

School or College	Required Number of Credit Hours			Total to Graduate
	Sophomore	Junior	Senior	
Education:				
Music Education	26	60	94	137
Industrial Arts Education	33	65	94	124
Industrial Arts Technology	33	65	94	124
All Other Programs	23	53	83	120

### PASS-FAIL OPTION

The purpose of the pass-fail grade option is to encourage students to broaden their educational experiences with a reduced possibility of harming their grade point averages. 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. Grades of F or I will be handled in the normal sense.

Courses taken to satisfy General Education, 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 the registration period or during the add period each semester. The pass-fail option, once contracted, may be reversed only during the add period.

### 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.

### MATRICULATION STATUS (Leave of Absence)

Matriculated degree candidates who withdraw from all course work in a given semester maintain their matriculated status for one year from the fifth school day of the next regular academic term. Matriculated degree candidates who do not register for a given semester maintain their matriculated status for one year from the fifth school day of the semester for which they did not register. If a student resumes attendance during the time period specified above, no readmission process is required. The student should contact the Registrar's Office for registration instructions.

If a student wishes to resume studies as a degree candidate after the time period specified above, an application for readmission must be filed with the Admissions Office.

Suspended students must follow the instructions provided in the section "Readmission After Academic Suspension."

### READMISSION AFTER ACADEMIC SUSPENSION

Matriculated degree candidates may apply for readmission to the University in accordance with the stipulations specified in the suspension action. If readmission is requested within one year from the fifth school day of the next regular academic term following suspension, the student must receive the approval of the dean.

If a student wishes to resume studies as a degree candidate after the time period specified above, an application for readmission must be filed with the Admissions Office.

## **WITHDRAWAL FROM THE UNIVERSITY**

The procedure for withdrawal from the University is to secure an official withdrawal slip from the Registrar's Office and complete an exit interview with a member of the Educational Services' staff.

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

Information concerning financial obligations to the University relative to the withdrawal policy can be found in the preceding section, "Financial Information."

## **RESIDENCE REQUIREMENT**

In all undergraduate divisions 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. A student may earn 6 of these 30 credit hours at another campus of the University of Maine. 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.

## **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 chairman are required.

The approved independent study form is filed with the Registrar during the registration period.

## **INDEPENDENT STUDY TERM**

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

## **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.

## **DOUBLE MAJORS**

When a student completes the basic requirements 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.

## **POST BACCALAUREATE STUDY FOR SECOND DEGREE**

A second bachelor's degree may not be granted a student until he has completed an additional year of college work, as represented by a minimum of thirty (30) semester hours above 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.

## **CHANGE OF MAJOR WITHIN A SCHOOL OR COLLEGE**

Permission to change from one major to another is granted only by the Office of the Dean and the 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 candidates, pre-nursing, and conditional candidates must be processed by the Advising and 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 Information Department.

## COURSE WORK AT OTHER INSTITUTIONS

Matriculated students at the University are expected to secure written approval from the appropriate dean prior to taking course work at another institution. Such credits outside the University of Maine system count towards the total degree hours required but are not figured in the cumulative grade-point averages.

## THE PERMANENT ACADEMIC RECORD

The permanent academic record 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 that 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 of Maine. The transcript is available only with the signature of the student and will be released to that student or a designee only if 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 Placement Office for prospective employers at no additional cost.

## 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

## GRADUATION REQUIREMENTS

A candidate for bachelor's degree 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 with the Office of the Registrar at the beginning of the semester of graduation.

## 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 an accumulative average of 3.0 or above for course work in the baccalaureate program, and must earn at least 30 credits, normally the final 30 credits, at the University.

## CORE COURSE DESCRIPTIONS

Interdisciplinary courses focus on problems or issues to emphasize the interrelatedness of knowledge and engage students actively in integrating their studies. Team taught by faculty members from several disciplines, these courses examine value judgments and the limits as well as power of an academic discipline.

### CORE 101

An interdisciplinary investigation of three turning points in Western culture: Greece about 400 B.C., Europe about 1600 A.D., and Europe about 1900 A.D. The course is team taught and uses lecture, panel discussion and film. Cr 3.

### CORE 102 Human Ecology

An interdisciplinary study of the interactions between people and environments. A systems analysis approach focuses on three aspects of human ecology: energy use, population pressure and environmental impact. The course is team taught and uses lecture, discussion and films. Cr 3.

**CORE 103 Revolution in the Arts (1850-1918)**

A study of the changes in art, music and theatre from 1850-1918 in light of cultural and historic events. The team taught course uses lectures, slides, live and recorded music, and theatrical dramatizations. No prerequisites. Cr 3.

**CORE 104 Women and Men: Perspectives on Gender**

This course is designed as an interdisciplinary investigation of the various perspectives on the complexity of gender issues. Special attention will be focused on theoretical explanations for sex similarities and differences in contemporary and cross cultural society. This course will be team taught and will consist of lectures, films, small group discussions and experiential activities. Cr 3.

### Women's Studies

**Coordinator: Joanne H. Clarey**

Committee: Tizon, Gish, Lazar, MacPherson, Gutmann, LaFrance, Cohen, Helms, McKeil, Padula

The Women's Studies Program is an interdisciplinary academic program for undergraduates focusing on the study of women, women's experience and accomplishments, the gendering of knowledge, and the new knowledge, theories and research which derive from women's studies. The program, open to both women and men, may be particularly useful for those whose future careers will concern issues dealing with women or with families, whether in public service, private industry, academia, or community life. Students interested in this program may contact the Coordinator or Committee members for information on requirements.



# College of Arts and Sciences

## DEAN

Robert J. Hatala

Assistant to the Dean

Kathie L. Benton

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

## DEPARTMENTAL ORGANIZATION

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

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

## BACCALAUREATE DEGREE PROGRAM

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 Chemistry Department and Bachelor of Music in Performance (B.M.) is offered by the Music Department.

Applied Chemistry	History
Applied Music	Liberal Studies
Art	Mathematics
Biology	Music
Communication	Philosophy
Computer Science	Political Science
Criminal Justice	Psychology
Earth Science	Self-Designed
Economics	Social Science
English	Sociology
French	Social Welfare
Geography-Anthropology	Theatre
Geology	

## REQUIREMENTS FOR BACCALAUREATE DEGREE PROGRAM

To qualify for a baccalaureate degree, each student must fulfill University requirements, College of Arts and Sciences requirements, and departmental (or program) requirements.

### University Requirements

All students must fulfill the General Education Requirement in order to graduate. This requirement, consisting of 30 or 33 credit hours, is described in the Academic Policies section of this catalog. Courses in the student's major may not be applied toward fulfillment of the General Education Requirement. Students are encouraged to complete this requirement by the end of the sophomore year. Courses taken to complete the General Education Requirement may not be taken on a pass/fail basis.

### College Requirements

All College of Arts and Sciences students must pass a writing proficiency requirement, a composition requirement, and a mathematics proficiency requirement.

## **WRITING PROFICIENCY REQUIREMENT**

In order to demonstrate minimum college-level writing proficiency and thereby qualify to take ENG 100 or ENG 101, students must do one of the following:

1. Score 43 or above on the Test of Standard Written English (TSWE).
2. Pass ENG 009.
3. Pass a locally administered English Department writing examination.
4. Demonstrate to the English Department adequate success in previous college-level courses.

## **COMPOSITION REQUIREMENT**

All CAS students must pass a three-credit course in college-level writing (ENG 100 or ENG 101). The requirement may be waived in one of three ways:

1. Scoring 59 or better on the TSWE.
2. Passing a locally administered English Department writing examination.
3. Demonstrating to the English Department a strong record of success in writing in previous college-level courses.
4. Scoring 500 in the C.L.E.P. English test and thereby gaining three credits.

By the end of the sophomore year all students must either have fulfilled the composition requirement or have qualified for ENG 100/101.

NOTE: ENG 100 is a prerequisite to ENG 120.

Incoming students will be placed in English composition courses as follows:

1. TSWE score below 43 - ENG 009.
2. TSWE score 43-58 - ENG 100/101.
3. TSWE score 59 or above - composition requirement waived.

## **MATHEMATICS PROFICIENCY REQUIREMENT**

All CAS students must have a minimum mathematics proficiency. This proficiency can be demonstrated in one of three ways:

1. By achieving a score of above 450 on the mathematics subtest of the Scholastic Aptitude Test (SAT).
2. By passing an equivalent test administered by the Department of Mathematics and Computer Science.
3. By passing MS 011, a remedial algebra course.

No student will be admitted to Junior Class standing who has not demonstrated minimum mathematics skills.

## **Departmental Or Program Requirements**

The college requires that each student fulfill the requirements of a program and that each student formally declare a major prior to completing 53 credit hours. Fine Arts students, however (especially in art and music), usually must begin their program earlier because of portfolio and audition requirements. Students planning to major in a science are advised to obtain an advisor in the appropriate department and begin the required course sequences as soon as possible. Selecting a major is an important and often difficult decision. Students undecided about a major should take courses in the various programs which interest them before making a final decision. Undecided students are also encouraged to consult the Office of Counseling and Career Development as well as the departments which interest them prior to formally declaring a major.

Individual program requirements are described in the pages that follow.

## **ASSOCIATE OF ARTS DEGREE PROGRAM IN LIBERAL ARTS**

A two year program leading to the Associate of Arts degree (A.A.) in Liberal Arts is available in conjunction with the Division of Basic Studies. Graduates of this program may transfer into a baccalaureate degree program.

## REQUIREMENTS

Courses	Credit Hours
College Writing (ENG 100) or Composition (ENG 010)	3

NOTE: ENG 010 and ENG 100 are not the same. Students who transfer into a 4-year program must have passed the departmental exam.

Humanities	6
Fine and Applied Arts	6
Science and Mathematics	6
Social Sciences	6
General (Any of the above, CAS, PE or RTLS)	6
Electives	27
<b>TOTAL</b>	<b>60</b>

Students in this program may select electives from courses carrying numbers of 010 or greater, depending on their interest. Students interested in transferring into a baccalaureate degree program should restrict their choices to courses carrying numbers 100 or greater (see section on Academic Policies) and should consult the baccalaureate program requirements.

NOTE: MS 010 and MS 011 carry credit only toward the associate degree.

### ACADEMIC MAJORS AND MINORS FOR THE COLLEGE OF EDUCATION

The College of Arts and Sciences provides programs which enable students in the College of Education to concentrate in various subject areas. Major and minor programs in CAS available to Education students include:

#### Art

Art Education

#### Mathematics

Mathematics Major and Minor  
(Secondary Education)

#### Music

Music Education

For information on other majors and minors, students should consult the departments in their area of interest.

### OTHER EDUCATIONAL OPPORTUNITIES

#### CAS Courses

The College of Arts and Sciences offers courses on a variety of topics and themes which are not sponsored by individual departments. These courses (listed as "CAS") are described in the course schedule each semester.

#### 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 and the department involved, 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 CAS.

#### Double Majors

It is possible for CAS students to declare a major in two departments. Students interested in a double major should consult the appropriate departments and obtain a declaration of major form from the Registrar's Office.

#### CAS Minors

Minors are available in these departments:

Art History, Biology, English, Foreign Language, Geology, History, Mathematics and Computer Science, Music, Political Science, and Sociology.

## CAS Program Majors

### LIBERAL STUDIES MAJOR

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, declare a major, or follow a program concentration. Students interested in this course of study may apply to the Liberal Studies Major Board at the normal time for declaring a major. Guidelines for this program may be obtained from the office of the Dean of College of Arts and Sciences.

### SELF-DESIGNED MAJOR

The Self-Designed Major is an option for creative students who wish to pursue a multi-disciplinary program on a theme or problem not available to them within a currently offered USM departmental major. The Self-Designed Major must be structured around an area as broad as a department major and must provide breadth and depth dimensions consistent with a College of Arts and Sciences major. The major encourages a broad, in-depth concentration and is structured by the individual student in conjunction with faculty sponsors. Students may apply for this program to the Committee on Self-Designed Majors at the normal time for declaring a major. The program description and guidelines may be obtained from the office of the Dean of the College of Arts and Sciences, and completed proposal must be submitted to and approved by the committee.

### SOCIAL SCIENCE

The Social Science 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 concentration requirement.

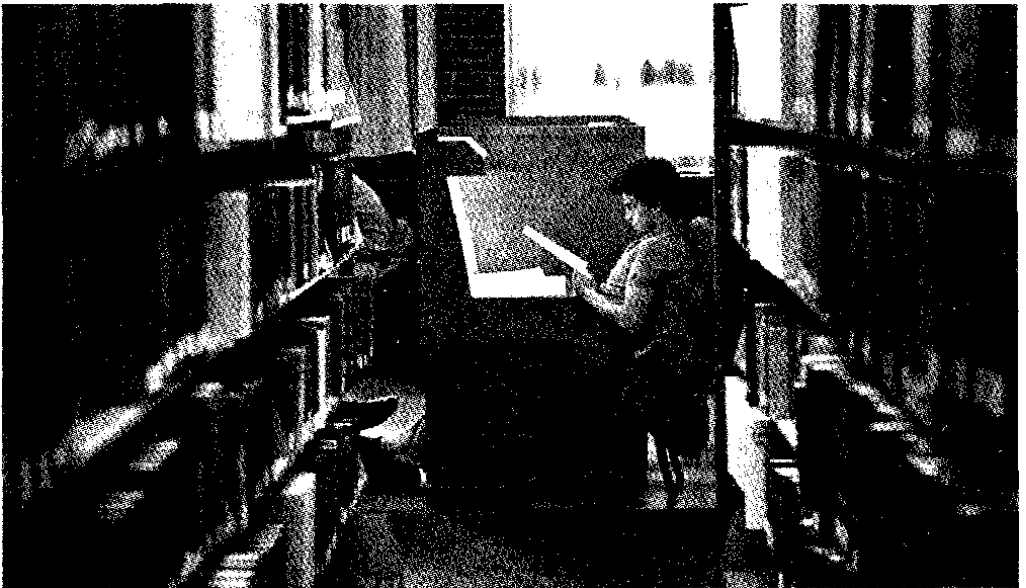
#### Concentration Requirements

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

- a. Geography-Anthropology—to include GEOG 101, GEOG 102 or GEOG 201, ANY 101, ANY 102 or ANY 103 and at least three courses in Geography or Anthropology at the 300 level or above. 21 Credits.
- b. History—to include at least 12 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 100, 300, 305; or SOC 307, 312, or 356. 21 Credits
- e. Economics—to include ECON 101, 102, 301, 302; three advanced economics courses including ECON 201. 21 Credits.

Program description and guidelines are available in the office of the Dean of the College of Arts and Sciences.

The College of Arts and Sciences also offers a Master of Science in Computer Science and a Master of Arts in History (the latter in cooperation with the University of Maine at Orono). Please refer to the Graduate Programs page in this catalog, and to the USM Graduate Catalog for information.



# ART

Chairman of the Department: Duncan Hewitt, 101 Academy Building, Gorham.

Professors Bearce, Ubans; Associate Professors Franklin, Hewitt, Moore, Rakovan; Assistant Professor Schiferl

## OBJECTIVES

The objectives of the USM Department of Art are Fine Arts oriented. The department offers three bachelor's degrees—the B.F.A. is most heavily involved with studio art courses and prepares students 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 in the state; the B.A. is a liberal arts degree, designed to provide a broad liberal arts education and to prepare students for graduate study in allied fields. In all programs, the faculty strive to promote the development of creative attitudes in the student.

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 non-verbal communication skills.
- 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.

## PROGRAMS

In the College of Arts and Sciences, the Department of Art offers programs leading to both a Bachelor of Arts degree (B.A.) and a Bachelor of Fine Arts degree (B.F.A.). Through the College of Education, the department offers an Art Education program leading to a Bachelor of Science degree (B.S.), which prepares graduates to teach or supervise art in all grades of the public schools.

## DEPARTMENT OF ART

Students wishing to apply for admission to the Department of Art at USM should use the following procedures:

Formal application should be made to the Director of Admissions, Admissions Office, USM, Gorham Campus, Gorham Maine. Current degree candidates enrolled at USM 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 Chairman, 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 CORE (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 core requirements are completed. The portfolio should consist of twelve (12) works in varying media, including one self-portrait drawn from life. The entire portfolio should indicate the applicant's current interest and may include prints, drawings, paintings, posters, photographs, and films, but 35mm slides or photographs of three-dimensional work should be submitted rather than the work itself. The department cannot accept responsibility for damage or loss, and asks that no glass, three-dimensional work or work larger than 20" x 24" be submitted.

Portfolio deadlines and application forms may be obtained from the USM 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.

## RECOMMENDED ART COURSES

### To Meet General Education Requirements of Students Majoring in Other Programs

For students outside the art major who seek to meet the General Education Requirement in Fine and Applied Arts, the following courses are offered by the Department of Art:

ART	101	Introduction to Art
ARTH	111	History of Art I
ARTH	112	History of Art II
ARTH	273	Film as Image and Idea
ARTS	141	Design I
ARTS	151	Drawing I

## GENERAL EDUCATION REQUIREMENTS FOR ART MAJORS

All students are reminded that, in addition to completing departmental requirements for a major leading to a baccalaureate degree, they must also meet the requirements of the college involved, as well as the University's General Education Requirements.

In order to satisfy the General Education Requirement in the area of Fine and Applied Arts, art majors must complete six credits apart from the Department of Art (such as music, theatre, dance).

## REQUIREMENTS FOR ART MAJORS

### Requirements for Bachelor of Arts (B.A.) Degree

#### ART CORE (18 credits)

ARTS	141	Design I
ARTS	142	Design II
ARTS	151	Drawing I
ARTS	152	Drawing II
ARTH	111	History of Art I
ARTH	112	History of Art II

#### ART HISTORY REQUIREMENT (9 credits)

ARTH	411	Philosophy of Art (may substitute PLY 220)
ARTH		Elective
ARTH		Elective

#### STUDIO ART REQUIREMENT

(18 credits of ARTS Electives)

#### GENERAL EDUCATION REQUIREMENT

(30 or 33 credits)

(see Academic Policies section of this catalog)

#### ELECTIVES (45 credits)

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

### Requirements for Bachelor of Fine Arts (B.F.A.) Degree

#### ART CORE (18 credits)

ARTS	141	Design I
ARTS	142	Design II
ARTS	151	Drawing I
ARTS	152	Drawing II
ARTH	111	History of Art I
ARTH	112	History of Art II



## STUDIO ART REQUIREMENT

45 credits of Electives

### ART HISTORY REQUIREMENT (9 credits)

ARTH	411	Philosophy of Art (may substitute PLY 220)
ARTH		Elective
ARTH		Elective

### GENERAL EDUCATION REQUIREMENT

(30 or 33 credits)

(see Academic Policies section of this catalog)

### ELECTIVES (18 credits)

A concentration of 12 credits in Painting, Printmaking, Ceramics, Drawing or other (specified by the department) area is required. In addition, B.F.A. candidates are required to have an exhibit of their work during their senior year.

## Art Education Program Requirements for Bachelor of Science (B.S. Degree)

### ART CORE (18 Credits)

ARTS	141	Design I
ARTS	142	Design II
ARTS	151	Drawing I
ARTS	152	Drawing II
ARTH	111	History of Art I
ARTH	112	History of Art II

### ART HISTORY REQUIREMENT (9 credits)

ARTH	411	Philosophy of Art (may substitute PLY 220)
ARTH		Elective
ARTH		Elective

### STUDIO ART REQUIREMENT (27 credits)

ARTS	232	Ceramics I
ARTS	261	Painting I
ARTS	271	Photography I
ARTS	281	Printmaking
ARTS	291	Sculpture I
ARTS		Elective
ARTS		Elective
ARTS		Elective
ARTS		Elective

### PROFESSIONAL EDUCATION REQUIREMENT (27 credits)

ARTE	221	Practicum in Art Education
ARTE	321	Principles and Procedures in Art Education
EDU	350	Modern Philosophies of Education (EDU 200 may be substituted)
EDPY	333	Human Growth and Development
EDU	324	Student Teaching (6-cr. course)
EDU	324	Student Teaching (6-cr. course)
ARTE	421	Seminar in Art Education

### GENERAL EDUCATION REQUIREMENT

(30 or 33 credits)

(see Academic Policies section of this catalog)

### ELECTIVES (12 credits)

Includes 2 credits of Physical Education.

## Art History Minor

ARTH	111	History of Art I
ARTH	112	History of Art II
ARTH	411	Philosophy of Art (may substitute PLY 220)

Art history courses (noted by ARTH prefix) above the 200 level including: (12 credits)

- a) at least one in any of the following areas:  
Classical, Medieval, Renaissance.
- b) at least one in either of the following areas:  
19th Century Western Art, 20th Century Western Art.

## COURSE DESCRIPTIONS

### Art History

#### **ART 101 Introduction 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 core courses. Cr 3.

#### **ARTH 111 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 candidates for matriculation in the Department of Art, or those with permission of the instructor. Cr 3.

#### **ARTH 112 History of Art II**

A continuation of ARTH 111 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 candidates for matriculation in the Department of Art, or those with permission of the instructor. Cr 3.

#### **ARTH 212 Classical Art**

A survey of ancient art and architecture with special emphasis on discussing the key monuments of Greek and Roman art and their influence on later artistic periods. Prerequisite: ARTH 111. Cr 3.

#### **ARTH 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: ARTH 111. Cr 3.

#### **ARTH 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 which contributed to the development of Renaissance art. Prerequisite: ARTH 112. Cr 3.

#### **ARTH 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: ARTH 112 Cr 3.

#### **ARTH 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 which influenced its development. Prerequisite: none. Cr 3.

#### **ARTH 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.

#### **ARTH 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 this, the only major form of creative expression conceived and developed entirely within the Industrial Age. Principles of evaluation, illustrated through the development of motion pictures to their present state. Prerequisite: permission of the instructor. Cr 3.

#### **ARTH 311 Topics in Art History**

A seminar on a selected topic in art history which will be the focus of in depth research and discussion. Prerequisite: permission of the instructor. Cr 3.

#### **ARTH 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: ARTH 112. Cr 3.

#### **ARTH 316 Modern Art**

A continuation of ARTH 315 covering the period from 1880-1950 and including the growth and development of the modern "isms." Prerequisite: ARTH 112. Cr 3.

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

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



#### **ARTH 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: ARTH 112. Cr 3.

#### **ARTH 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**

#### **ARTS 141 Fundamental Design I**

A coordinated series of experiments with basic design problems directed toward developing an awareness of the design potential, and the confidence, imagination, and skill to realize this potential. Prerequisite: preference given candidates for matriculation in the Department of Art, or those with permission of the instructor. Cr 3.

#### **ARTS 142 Fundamental Design II**

A continuation of Fundamental Design I towards the completion of a foundation in the understanding and use of the basic elements of design. The course will consist of projects which relate form, space, color, and imagination as elements of a complete composition. Prerequisite: ARTS 141. Cr 3.

#### **ARTS 151 Fundamental Drawing I**

The craft and concepts of making drawings, stimulated by the forms, spaces, and images of the tangible world, an introduction to marking tools and surfaces. Exposure to places, events, and objects with the purpose of stimulating the need to draw. Prerequisite: preference given candidates for matriculation in the Department of Art, or those with permission of the instructor. Cr 3.

#### **ARTS 152 Fundamental Drawing II**

Continuation of Fundamental Drawing I with drawing from the model. Prerequisite: ARTS 151. Cr 3.

#### **ARTS 231 Ceramics**

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

#### **ARTS 233 Textiles**

Introductory exercises with elementary weaves, the harness loom, backstrap, and inkle looms, and tapestry weaving. The student is encouraged to experiment with fibre construction. The emphasis is on fundamentals. Prerequisite: art core courses. Cr 3.

#### **ARTS 251 Drawing III**

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

#### **ARTS 261 Painting**

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

#### **ARTS 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.

#### **ARTS 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.

#### **ARTS 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.

#### **ARTS 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: ARTS 231. Cr 3/3.

#### **ARTS 351/352 Intermediate Drawing**

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

#### **ARTS 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: ARTS 261. Cr 3/3.

#### **ARTS 363 Painting/Watercolor**

Watercolor, wash, dry-brush, ink and wash, gouache, and other techniques in watermedia. Emphasis on individual concepts and personal expression. Prerequisite: ARTS 261. Cr 3.

#### **ARTS 365/366 Intermediate Watercolor**

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

#### **ARTS 371/372 Intermediate Photography**

Exploration of concepts and techniques of photography with emphasis on individual forms of expression. Prerequisite: ARTS 271. Cr 3/3.

#### **ARTS 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 ARTS 281, Printmaking. Prerequisite: ARTS 281. Cr 3/3.

#### **ARTS 391/392 Intermediate Sculpture**

The theory and practice of sculptural composition using a variety of techniques with traditional and new materials. Prerequisite: ARTS 291. Cr 3/3.

#### **ARTS 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.

#### **ARTS 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

## Art Education

faculty member of the student's choice. Prerequisite: permission of instructor and Art Department chairman. Cr 1 to 6.

### **ARTS 431/432 Advanced Ceramics**

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

### **ARTS 451/452 Advanced Drawing**

Making personal and complete drawings and series of drawings. Emphasis on individual concepts and personal expression. Prerequisite: ARTS 351 and 352. Cr 3/3.

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

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

### **ARTS 481/482 Advanced Printmaking**

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

### **ARTS 491/492 Advanced Sculpture**

Continuation of Intermediate Sculpture with emphasis on the pursuit of personal imagery. Prerequisite: ARTS 391 and 392. Cr 3/3.

### **ARTE 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.

### **ARTE 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: ARTE 221 and Art Core courses. Cr 3.

### **ARTE 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. Cr 2.



# BIOLOGICAL SCIENCES

Chairman, Department of Biological Sciences: Louis F. Gainey, Jr., 306 Science Building, Portland.

Professors Kormondy, Najarian; Associate Professors: Gainey, Greenwood, Holmes, Mazurkiewicz, Riciputi, Schwinck; Assistant Professors: Dorsey, O'Mahoney.

## PROGRAM

A four-year program leading to a B.A. degree in Biology is offered. This program provides students with a Liberal Arts education emphasizing the sciences. 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 and law schools, as well as schools for allied health professions. 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.

## REQUIREMENTS FOR A BIOLOGY MAJOR

Course No.	Course Title	Credit Hours
MS 152	Calculus A.....	4
PHYS 121 and 122	General Physics.....	10
CHEM 113	Qualitative Principles of Chemistry I.....	3
CHEM 114	Qualitative Laboratory Techniques I.....	2
CHEM 115	Qualitative Principles of Chemistry II.....	3
CHEM 116	Qualitative Laboratory Techniques II.....	2
CHEM 251	Organic Chemistry I.....	3
CHEM 252	Organic Chemistry Laboratory I.....	2.5
CHEM 253	Organic Chemistry II.....	3
CHEM 254	Organic Chemistry Laboratory II.....	2.5

Foreign language through intermediate level, or a passing grade in French 106 or German 106. Credits to be earned depend upon the language proficiency of the student.

Challenge examinations are available.....0-6

BIO 101 and 102	Biological Principles (3 credits) and Biological Experiences (1 credit).....	4
BIO 103 and 104	Biological Diversity (3 credits) and Survey of Animals and Plants (1.5 credits).....	4.5
BIO 201	Principles of Genetics.....	3
BIO 203 and 204	Comparative Vertebrate Embryology (2 credits) and Comparative Vertebrate Embryology Laboratory (2 credits).....	4
or		
BIO 205 and 206	Comparative Vertebrate Anatomy (3 Credits) and Comparative Vertebrate Anatomy Laboratory (2 credits).....	5
BIO 311 and 312	Microbiology (3 credits) and Microbiological Laboratory (2 credits).....	5
BIO 331 and 332	Ecological Principles (3 credits) and Field Ecology (2 credits).....	5
BIO 401 and 402	General Physiology (3 credits) and General Physiology Laboratory (2 credits).....	5
*BIO 421	Biology Seminar.....	1

Students not prepared for MS 152 should precede this course with MS 140, Pre-Calculus Mathematics (3 credits).

\*Optional, but strongly recommended.

NOTE: Students interested in preparation for medical technology, medical or dental schools, should take the same chemistry courses as required for a major in biology. Analytical Chemistry is required for those interested in medical technology (see Dr. P. O'Mahoney for pre-professional advising). All students are reminded that, in addition to departmental requirements, they must also meet the Core Curriculum requirements.

## BIOLOGY MINOR

Requires these courses:

BIO 101, 102, 103, 104 (8.5 credits)

or

BIO 101, 102, 111, 112 (8.5 credits)

Plus biology electives numbered 200 or above to equal 18 credits.

## COURSE DESCRIPTIONS

### **BIO 015 Wildlife Biology**

The course covers principles of wildlife management and its relationship to ecological principles, federal land agencies, and land use planning. The role of law enforcement and politics is discussed. Special areas of interest include waterfowl, exotic and specific habitat, and management of a few representative species. Cr 3.

### **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 103 or BIO 111. Associate degree credit only. Cr 3.

### **BIO 101 Biological Principles**

An introduction to the structure and function of animal and plant systems in terms of cells, molecules, energy, and heredity. Offered fall and spring semesters. Cr 3.

### **BIO 102 Biological Experiences**

Laboratory studies of the structure, function, and reproduction of cells and examination of representative animals and plants. Offered fall and spring semesters. Cr 1.

### **BIO 103 Biological Diversity**

The origin, evolution and diversity of life. Must be taken with BIO 104. Prerequisite: grade of "C" or higher in BIO 101. Cr 3.

### **BIO 104 Survey of Plants and Animals**

Comparative laboratory studies of structural and reproductive adaptations of organisms. Must be taken with BIO 103. Prerequisite: grade of "C" or higher in BIO 102. Cr 1.5.

### **BIO 111 Human Anatomy and Physiology**

The study of functional anatomy and physiology of the human. Prerequisite: grade of "C" or higher in BIO 101. Spring semester only. Cr 3.

### **BIO 112 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 206. Prerequisite: grade of "C" or higher in BIO 102; BIO 111 or concurrent with BIO 111. Cr 1.5.

### **BIO 151 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 101. Cr 3.

### **BIO 200 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 101. NOT open to students who have passed BIO 203. Cr 3.

### **BIO 201 Principles of Genetics**

A study of heredity through a discussion of the mechanism and control of gene action. Current research on the nature of mutations and the role of genes in development, behavior, and populations will be examined. Prerequisite: grade of "C" or higher in BIO 101. Fall semester. Cr 3.

### **BIO 202 Experimental Genetics**

Practical laboratory experience in techniques used in genetics. Prerequisite: BIO 201. Cr 2.

### **BIO 203 Comparative Vertebrate Embryology**

The embryonic origin and evolutionary relationships of vertebrate structure. Prerequisite: grade of "C" or higher in BIO 103. Spring semester. Cr 2.

### **BIO 204 Comparative Vertebrate Embryology**

**Laboratory**  
Laboratory experiments and observations on amphibian, chick, and mammalian embryos. Prerequisite: BIO 203 or concurrent with BIO 203. Spring semester. Cr 2.

### **BIO 205 Comparative Vertebrate Anatomy**

The structure, embryology and evolution of vertebrate organ systems. Prerequisite: grade of "C" or higher in BIO 103, 104. Spring semester. Cr 3.

### **BIO 206 Comparative Vertebrate Anatomy**

**Laboratory**  
A comparison of the anatomy of vertebrates by dissection of adults and demonstration of embryological development. Prerequisites: BIO 104, BIO 205 or concurrent with BIO 205. Spring semester. Cr 2.

### **BIO 217 Evolution**

A study of the processes of biological evolution. Prerequisite: Grade of C or higher in BIO 101. Cr 3.

### **BIO 231 Botany**

A study of structure, function, development, reproduction, and environmental adaptations of representative non-vascular and vascular plants. Prerequisite: grade of "C" or higher in BIO 101 and BIO 102. Cr 3.

### **BIO 232 Botany Laboratory**

Laboratory examination of topics discussed in BIO 231. Prerequisite: concurrent with BIO 231. Cr 1.5.

### **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 103, and BIO 104, one year of college chemistry or permission of the instructor. Cr 3.

### **BIO 242 Plant Physiology Laboratory**

Laboratory examination of phenomena in plant physiology. Prerequisite: concurrent with BIO 241. Cr 1.5.

### **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 101, 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 292 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 101. Spring semester only. 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 101, 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 102, BIO 311 or concurrent with BIO 311. Cr 2.

#### **BIO 321 Histology**

A lecture and laboratory course in which the microscopic anatomy of animal tissues is studied. Two hours of lecture and 4 hours of lab. Prerequisites: grade of "C" or higher in BIO 101 and BIO 102. (offered irregularly.) Cr 3.

#### **BIO 331 Ecological Principles**

The interrelationships of living organisms and their environments, including man's impact on ecosystems. Prerequisite: grade of "C" or higher in BIO 103. Fall semester only. Cr 2.

#### **BIO 332 Field Ecology**

Field and laboratory studies demonstrating basic concepts of ecology. (Numerous field trips.) Prerequisites: BIO 331 or concurrent with BIO 331. Cr 2.

#### **BIO 335 Entomology**

Integrated lecture-laboratory course on the biology of insects and their impact on man. Prerequisite: grade of "C" or higher in BIO 103. Cr 3.

#### **BIO 345 Pathophysiology**

A study of the physiological, genetic, biochemical and environmental basis of noninfectious diseases. Prerequisite: grade of C or better in BIO 111 or permission of instructor. Fall only. Cr 3.

#### **BIO 351 Invertebrate Zoology**

The morphology, physiology, and phylogenetic relationship of non-backboned animals. Prerequisite: grade of "C" or higher in BIO 101. Cr 2.

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

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

#### **BIO 361 Parasitology**

The life histories and host-parasite relationships of animal parasites, with emphasis on those of humans. Prerequisite: grade of "C" or higher in BIO 101. Cr 2.

#### **BIO 362 Parasitological Laboratory**

The morphology and life cycles of parasitic protozoa, helminths, and arthropods. Prerequisite: BIO 361, or concurrent with BIO 361. Cr 2.

#### **BIO 371 Fishery Biology**

A study of the principles, theories, and methods used in fishery biology; historic and contemporary fish culture practices, and environmental modifications affecting fishery resource production. Freshwater, estuarine, and marine fisheries will be considered. Prerequisites: grade of "C" or higher in BIO 103, 104. Fall semester only. Cr 3.

#### **BIO 372 Fishery Biology: Lab and Field**

Practical laboratory and field experiences of

methods and techniques used in fishery biology. Prerequisites: BIO 371 or concurrent with BIO 371. Fall semester only. Cr 2.

#### **BIO 381 Cell Biology**

Structure and function of cells on the cellular, subcellular and molecular levels. Prerequisites: grade of "C" or higher in BIO 101, 102; one year of college chemistry, or instructor's permission. Cr 3.

#### **BIO 401 General Physiology**

A study of physiological processes and their regulation in animals. Prerequisites: grade of "C" or higher in BIO 101; 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. Prerequisites: BIO 401 or concurrently. Cr 2.

#### **BIO 403 Comparative Physiology**

Physiological and biochemical basis of environmental adaptation. Prerequisite: one year college biology with grade of "C" or higher, one year 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 407 Comparative Animal Behavior**

The physiological, genetic, evolutionary and environmental basis of behavior will be studied in invertebrates and vertebrates. Emphasis will be placed on the neurophysiological and hormonal controls of behavior. Prerequisites: grade of "C" or higher in BIO 101; BIO 201 or BIO 111. Cr 3.

#### **BIO 415 Histochemistry**

A laboratory course offering practical experience in histological and histochemical techniques. Pre-



quisites: grade of "C" or higher in BIO 101, 102, CHEM 251. (offered irregularly.) Cr 3.

**BIO 421 Biology Seminar I**

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.

**BIO 491 Biochemistry**

A lecture course in which the biological strategies for synthesis, energy utilization, information transfer, and control systems are examined at the molecular level. Prerequisites: CHEM 253 or permission of instructor. Cr 3.





# CHEMISTRY

Chairman of Chemistry Department: John S. Ricci, Portland.

Professors Hatala, Ricci, Smith, Sottery, M. Whitten

## PROGRAM

The field of chemistry is concerned with the structure of matter and its transformations. The Department of Chemistry offers a four-year program leading to a Baccalaureate degree (either B.S. or B.A.) in Applied Chemistry. The principal objectives of this program are to provide students with (1) knowledge of both the theoretical and practical aspects of the science of chemistry and (2) the opportunity to explore an application of chemistry of their own choosing. Thus, students will be equipped upon graduation to enter a variety of occupations which require knowledge and practice of chemistry.

As a general rule, candidates for the B.S. degree in Applied Chemistry should complete the majority of their formal course work at the University by the end of the first three years of their studies. (Please see the sample schedules which are printed later in this section.) The fourth year in the B.S. program will consist partly of intensive independent study and field experience in a specific application of chemistry. After a reasonable orientation period, the student will participate actively in the day-by-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 suitably qualified staff member of the host facility and by a member of the chemistry faculty, who will also supervise the independent study. Students will thus learn the practical techniques at first hand, and will gain experience in approaches to the solution of real problems.

The curriculum for Applied Chemistry majors is designed to teach both practice and theory.

Elective and required courses in computer science and mathematics are intended to develop understanding of the applications of computers to such operations as the statistical analysis of laboratory data and the interfacing of mini-computers to laboratory instrumentation. Students who are interested in the Applied Chemistry major program are urged to consult with a member of the chemistry faculty to discuss the various options. Those who plan a career in an applied field of chemistry are advised to consider the B.S. option. In this program, they will have the opportunity for field experience with a practical application of chemistry. Students who prefer to retain a wider range of career options, especially in other disciplines which make extensive use of applications of chemistry, should consider the B.A. option. This program allows students to explore a somewhat broader set of elective courses. Even greater flexibility is afforded by the Self-Designed and Liberal Studies Major programs which are administered by the office of the Dean of Arts and Sciences. It is the intention of the chemistry faculty to prepare graduates of the Applied Chemistry program for productive effort in a society in which chemistry plays a vital role.

Students who apply for admission to the Applied Chemistry program are required to have completed college preparatory courses in chemistry, physics, and mathematics. At least two years of high school algebra and a semester each of geometry and trigonometry are recommended as part of the students' high school program. (Freshmen in the Applied Chemistry program who lack this preparation in mathematics are required to take MS 140, pre-calculus mathematics.) To be retained in the Applied Chemistry program, a student must maintain a minimum overall grade average (GPA) of 2.0; a GPA of 2.5 in required non-chemistry courses; and a GPA of 3.0 in required chemistry courses. Applied Chemistry majors are required to complete the following courses: CHEM 113 & 114, 115 (or 215) & 116; 231 & 232; 251 & 252; 253 & 254 (or 255 & 256); 321 or 361; 371 & 372; 400 (\*).

GEE 101

MS 152 PHYS 121, 122

\*Candidates for the B.A. degree are not required to take the CHEM 400 series independent study.

In addition, all Applied Chemistry majors will be required either to demonstrate proficiency in technical writing or to pass satisfactorily a one-credit course in the topic. Students interested in the Applied Chemistry program are urged to consult the chairman of the Department of Chemistry for additional information.

## OPPORTUNITIES

Among the industrial positions for which a B.S. in chemistry is appropriate are research and development, process control, technical sales and management training. Industries in such fields as drugs, electronics, plastics, petroleum, paper and metals require chemists.

Teaching in elementary and high schools is an extremely valuable calling for which a university degree is essential.

Research is a challenging field and laboratories devoted to it are found in universities, private or public research institutes and industry. While the discoveries resulting from fundamental research may, and probably will, find practical application, the driving energy that actuates the research chemist is love of chemistry for its own sake. For some forms of research or for university teaching, graduate degrees are important (M.S. or Ph.D.).

A degree in chemistry provides excellent preparation for professional studies in dentistry or medicine, and may provide a powerful combination with business, law (patents), writing and library work (for technical journals and libraries) and languages (for translating).

**SAMPLE SCHEDULE I**  
**Bachelor of Science Degree in Applied Chemistry**

**FRESHMAN YEAR**

	FALL		SPRING
CHEM 113, 114 (Qual. Principles I)	5	CHEM 115, 116 (Qual. Principles II)	5
PHYS 121 (General Physics)(G)	5	PHYS 122 (General Physics)(G)	5
*MS 152 (Calculus A)	4	ENG 100 or 120 (G)(S)	3
CS 160 (Intro. Computer Programming) or MS 120 (Intro. to Statistics)	3	ELECTIVE	3
	17		16

**SOPHOMORE YEAR**

CHEM 251, 252 (Organic Chem. I)	5.5	CHEM 253, 254 (Organic Chem. II)	5.5
CHEM 231, 232 (Analytical Chem.)	6	MS 153 (Calculus B)(S)	4
GEE 101 (Engineering Design I)	2	GEE 102 (Engineering Design II)(S)	2
ELECTIVE	2-3	ELECTIVES	3-5
	15.5-16.5		14.5-16.5

**JUNIOR YEAR**

CHEM 371, 372 (Physical Chemistry)	5.5	CHEM 321 (Inorganic Chem.) or CHEM 361 (Biochem.)	3
ELECTIVES	9-10	CHEM 373, 374 (Physical Chem.)(S)	5.5
	14.5-15.5	ELECTIVES	7
			15.5

**SENIOR YEAR**

INDEPENDENT STUDY (one or two semesters)	15
ELECTIVES	10-12
	25-27

MINIMUM TOTAL HOURS FOR GRADUATION 120

\*MS 152 is a pre- or corequisite for PHYS 121. Students lacking the necessary background for MS 152 (i.e., two years of high school algebra plus geometry and trigonometry) should plan to enroll in MS 140, Precalculus Mathematics, 3 credits, and defer PHYS 121, 122 until their sophomore year.

(G): Course fulfills a General Education requirement

(S): Course suggested for chemistry majors

**SAMPLE SCHEDULE II**

**Bachelor of Arts Degree in Applied Chemistry**

FALL SPRING

**FRESHMAN YEAR**

CHEM 113, 114 (Qual. Principles I)	5	CHEM 115, 116 (Qual. Principles II)	5
GEE 101 (Engineering Design I)	2	*MS 152 (Calculus A)	4
CS 101 160 (Intro. Computer Programming or MS 120 (Intro. to Statistics)	3	GEE 102 (Engineering Design II)(S)	2
ENG 100 or 120 (G)(S)	3	ELECTIVES	4-5
ELECTIVE	3		
	16		15-16

**SOPHOMORE YEAR**

CHEM 251, 252 (Organic Chem. I)	5.5	CHEM 253, 254 (Org. Chem. II)	5.5
PHYS 121 (General Physics)(G)	5	PHYS 122 (General Physics)(G)	5
CHEM 231, 232 (Analytical Chem.)	6	ELECTIVES	6
	<u>16.5</u>		<u>16.5</u>

**JUNIOR YEAR**

MS 153 (Calculus B)(S)	4	CHEM 321 (Inorganic Chem.) or CHEM 361 (Biochem.)	3
CHEM 371, 372 (Physical Chem.)	5.5	CHEM 373, 374 (Physical Chem.)(S)	5.5
ELECTIVES	6-7	ELECTIVES	7
	<u>15.5-16.5</u>		<u>15.5</u>

**SENIOR YEAR**

ELECTIVES	15-16	ELECTIVES	15-16
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**MINIMUM TOTAL HOURS FOR GRADUATION 120**

\*MS 152 is a pre- or corequisite for PHYS 121. Students lacking the necessary background for MS 152 (i.e., two years of high school algebra plus geometry and trigonometry) should plan to enroll in MS 140, Precalculus Mathematics, 3 credits, in the fall semester of their freshman year.

May be postponed until the senior year.

(G): Course fulfills a General Education Requirement

(S): Course suggested for chemistry majors

**COURSE DESCRIPTIONS****CHEM 100 Foundations for College Chemistry**

A course designed to help students who are inadequately prepared to complete successfully the CHEM 113-116 (Chemical Principles) sequence, either on the basis of their own perceptions or of their scores on the Toledo Chemistry Placement Test. 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. Offered each semester. Cr 2.

**CHEM 101 Chemistry I**

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 lectures per week (usually concurrent with CHEM 102). Offered each semester. Not appropriate for applied chemistry or biology majors. Cr 3.

**CHEM 102 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. Offered each semester. Corequisite: CHEM 101. Not appropriate for applied chemistry or biology majors. Cr 1.

**CHEM 103 Chemistry II**

An 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 lectures per week (usually concurrent with CHEM 104). Offered spring semester. Prerequisite: CHEM 101. Not appropriate for applied chemistry or biology majors. Cr 3.

**CHEM 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: CHEM 103. Not appropriate for applied chemistry or biology majors. Cr 1.

**CHEM 107 Chemistry for Technology**

A one-semester course intended to illustrate the connections between chemical theory and practical problems in the Industrial Arts. Two hours of lecture and one two-hour laboratory per week. Offered spring semester only. Not suitable for chemistry majors. Cr 3.

**CHEM 109 General Chemistry I**

A study of selected fundamental concepts and

theories of chemistry: atomic structure, periodic classification, electronic structure, chemical bonding, molecular structure, chemical reactions, chemical equations and quantitative relations, gases, kinetic theory, changes of state, solutions, acids and bases are discussed. Three lectures per week. No prerequisites. Cr 3.

#### **CHEM 110 General Chemistry I Laboratory**

Laboratory experiments to illustrate material presented in CHEM 109 lectures. One hour of recitation and two hours of laboratory per week. Corequisite: CHEM 109. Cr 2.

#### **CHEM 111 General Chemistry II**

A continuance of CHEM 109. Topics include thermochemistry, nuclear chemistry, selected materials in metallurgy, organic compounds, selected biological compounds, and synthetic materials. Three lectures per week. Prerequisite: CHEM 109 or permission of the instructor. Cr 3.

#### **CHEM 112 General Chemistry II Laboratory**

Laboratory experiments to illustrate material presented in CHEM 111 lectures. One hour of recitation and two hours of laboratory per week. Corequisite: CHEM 111. Cr 2.

#### **CHEM 113 Qualitative Principles of Chemistry I**

A presentation of fundamental principles of chemical science. These principles will be presented in qualitative terms and illustrated by concrete examples of their applications in laboratories and in ordinary non-laboratory experience. This course and CHEM 114 (normally taken concurrently) provide the basis for further study of chemistry for all students except those in health sciences. Three lectures per week. Cr 3.

#### **CHEM 114 Qualitative Laboratory Techniques I**

Laboratory experiments to illustrate the principles which are presented in CHEM 113 lectures. One recitation and two laboratory hours per week. Corequisite: CHEM 113. Cr 2.

#### **CHEM 115 Qualitative Principles of Chemistry II**

A presentation of topics of chemistry additional to those presented in CHEM 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 CHEM 113. Cr 3.

\* Students who achieve a grade of A or B in CHEM 113 may, with instructor's permission, elect CHEM 215 in place of CHEM 115.

#### **CHEM 116 Qualitative Laboratory Techniques II**

Laboratory experiments to illustrate the principles presented in CHEM 115 lectures. One recitation and two laboratory hours per week. Prerequisite: grade of C or better in CHEM 114. Corequisite: CHEM 115 or CHEM 215. Cr 2.

#### **CHEM 140 Energy Man and Environment**

This course presents a study of man's energy needs, and the alternative energy sources available. In addition, the impacts on the environment of the utilization of various energy sources will be considered. No prerequisite. Offered each semester. Cr 3.

#### **CHEM 141 Environmental Chemistry**

The role of chemistry and the chemical industry in

creating many environmental problems; the application of chemistry to aid in the solution of environmental problems. Prerequisite: one semester of an introductory college-level chemistry course or one year of high school chemistry completed within the last three years. Cr 3.

#### **CHEM 215 Quantitative Principles of Chemistry**

A quantitative presentation of selected chemical principles introduced in CHEM 113 and 115. Problem solving by dimensional analysis is stressed. Techniques are introduced for determining the uncertainty of computational results based on the precision of the data. This course may be elected by applied chemistry majors, and by others who plan to enroll in CHEM 371 (Physical Chemistry). Prerequisite: a grade of C or better in CHEM 115. \* Corequisite: MS 152 or equivalent. Three recitations per week.

\*Students who receive a grade of A or B in CHEM 113 may, with instructor's permission, elect CHEM 215 instead of CHEM 115. Cr 3.

#### **CHEM 231 Fundamentals of 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 CHEM 115 or CHEM 215. offered each fall semester. Cr 2.

#### **CHEM 232 Basic Laboratory Techniques of Analytical Chemistry**

Quantitative experimental determination by means of gravimetric, volumetric, and instrumental methods. Classical procedures and modern instrumentation, including mass, optical, and particle resonance spectrometry, spectrophotometry, electroanalysis and chromatography. One recitation and six laboratory hours per week. Prerequisite: a grade of C or better in CHEM 116. Corequisite: CHEM 231. Offered each fall semester. Cr 4.

#### **CHEM 251 Fundamentals of Organic Chemistry**

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 CHEM 115 or 215. Offered each fall semester. Cr 3.

#### **CHEM 252 Basic Laboratory Techniques of Organic Chemistry**

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. Offered each fall semester. Prerequisite: a grade of C or better in CHEM 116. Prerequisite or corequisite: CHEM 251. Cr 2.5.

#### **CHEM 253 Organic Chemistry II**

A continuation of CHEM 251, but with a more ex-

tensive (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. Offered each spring semester. Prerequisite: a grade of C or better in CHEM 251. Cr 3.

#### **CHEM 254 Organic Chemistry Laboratory II**

A continuation of the experiments begun in CHEM 252 on organic qualitative analysis, including solubility tests, classification tests, and preparation of derivatives. Interpretation of spectra will be introduced to assist in the process of identification of unknowns. One recitation and three laboratory hours per week. Offered each spring semester. Prerequisite: a grade of C or better in CHEM 252. Prerequisite or corequisite: CHEM 253. Cr 2.5.

#### **CHEM 255 Structural Chemistry**

A general consideration of the importance of stereochemistry and molecular geometry in chemical reactions. Introductory group theory will be presented, with specific applications of the symmetry properties of both organic and inorganic species. The applications of such techniques as spectroscopy and optical rotary dispersion to the elucidation of steric relationships will be presented. Four lectures per week. Prerequisites: MS 140 and a grade of C or better in CHEM 251. Cr 4.

#### **CHEM 256 Structural Chemistry Laboratory**

Elucidation of molecular structure by means of spectroscopic analysis. Mixtures of compounds of industrial, clinical or environmental importance will be separated chromatographically and subjected to spectroscopic techniques including flame emission, ultra-violet and infrared absorption spectroscopy. One recitation and three laboratory hours per week. Prerequisite: a grade of C or better in CHEM 232 and 252. Prerequisite or corequisite: CHEM 255. Cr 2.5.

#### **CHEM 321 Fundamentals of Inorganic Chemistry**

Descriptive chemistry of the inorganic compounds, structure, bonding and ligand field theory. Three lectures per week. Prerequisite: grade of C or better in CHEM 231, 215 & 255. Not offered every year. Cr 3.

#### **CHEM 322 Basic Laboratory Techniques of Inorganic Chemistry**

Preparation and characterization of inorganic compounds. Particular emphasis on those techniques employed in industry, research and quality control laboratories. One recitation and three laboratory hours per week. Prerequisite: a grade of C or better in CHEM 232 & 256. Prerequisite or corequisite: CHEM 321. Not offered every year. Cr 2.5.

#### **CHEM 361 Fundamentals of Biochemistry**

A consideration of the structure, function, and transformations of the principal compounds of biological importance, and of the applications of chemical principles to these studies. Three lectures per week. Offered in the fall semester. Prerequisite: grade of C or better in CHEM 253. Cr 3.

#### **CHEM 362 Basic Laboratory Techniques of Biochemistry**

(This course will be offered upon completion of appropriate laboratory space.) Experiments will be performed to illustrate material presented in CHEM 361. Offered in the fall semester. One recitation and three laboratory hours per week. Prerequisite or corequisite: CHEM 361. Cr 2.5.

#### **CHEM 371 Fundamental Principles of Physical Chemistry**

This course introduces majors in applied chemistry 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 recitations per week. Prerequisites: grade of C or better in CHEM 231 and MS 152. Offered fall semester. Cr 3.

#### **CHEM 372 Physical Chemistry Laboratory**

Experiments illustrative of theoretical principles pertinent to chemical processes, such as thermochemistry, absorption phenomena, electrochemistry and physical properties of gases. One recitation and three laboratory hours per week. Prerequisite: grade of C or better in CHEM 232. Prerequisite or corequisite: CHEM 371. Offered fall semester. Cr 2.5.

#### **CHEM 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 CHEM 371. Offered each spring semester. Cr 3.

#### **CHEM 375 Chemical Dynamics**

Lecture topics include: measurement of reaction rates, elementary gas phase reactions, reactions in solution, in the solid state, and on surfaces, homogeneous catalysis, and reaction mechanisms. Three lectures per week. Offered in alternate years. Prerequisite: a grade of C or better in CHEM 371. Cr 3.

#### **CHEM 376 Chemical Dynamics Laboratory**

Experiments will be performed in: solution kinetics (clock reactions), stopped-flow reactions, absorption on solid surfaces, gas phase thermal decomposition discharge flow-reactor studies, flash photolysis, single photon counting, and fluorescence quenching. Must be taken concurrently with CHEM 375. One hour of pre-lab recitation and three laboratory hours per week. Cr 2.5.

#### **CHEM 377 Spectroscopy**

The course topics will include a brief survey of quantum mechanics, introduction to atomic spectra, molecular spectroscopy, absorption, emission and luminescence spectroscopy, with descriptions of instrumentation, techniques, and spectral interpretation. Three lectures per week. Offered on an alternate year basis with CHEM 375 and 376. Corequisite: CHEM 378. Prerequisite: a grade of C or better in CHEM 371. Cr 3.

#### **CHEM 378 Spectroscopy Laboratory**

Experiments will be performed in low resolution ultraviolet and infrared absorption spectroscopy, flame and plasma spectroscopy, resonance fluorescence spectroscopy, atomic absorption and time-resolved spectroscopy. Must be taken concur-

rently with CHEM 377. Prerequisite: a grade of C or better in CHEM 371. One hour of prelab recitation and three laboratory hours per week. Offered at the same time as CHEM 377. Cr 2.5

#### **CHEM 400-498 Independent Study**

Independent study required of all B.S. majors in applied chemistry. An intensive exposure to a selected area of applied chemistry through an internship served in an appropriate clinical, industrial, government or research facility. The site and problem are to be selected by the student in conference with a faculty advisory committee and a representative of the training facility. Offered fall, spring and summer. Cr 1-15.

#### **PSCI 310 History of Science**

A comprehensive survey of the historical development of science from earliest records to the present. Attention is given to the nature of science, methods of scientific discovery, the interrelations of science and technology, and the implications of science for society. Emphasis is on the physical sciences. Prerequisite: two years (minimum of 12 credit hours) of college science. Cr 3.

#### **PSCI 400 Science and Society**

Readings and discussions concerning the relationships between science and society. The tactics and strategy of science and the philosophical and social implications of present scientific theories are considered with the aim of promoting understanding of the role of science in modern life. The interactions between scientists and society and the relationship between research and technology are also examined.

Not offered every year. Senior students and others by instructor's permission. Cr 3.

#### **PSCI 501 History of Science**

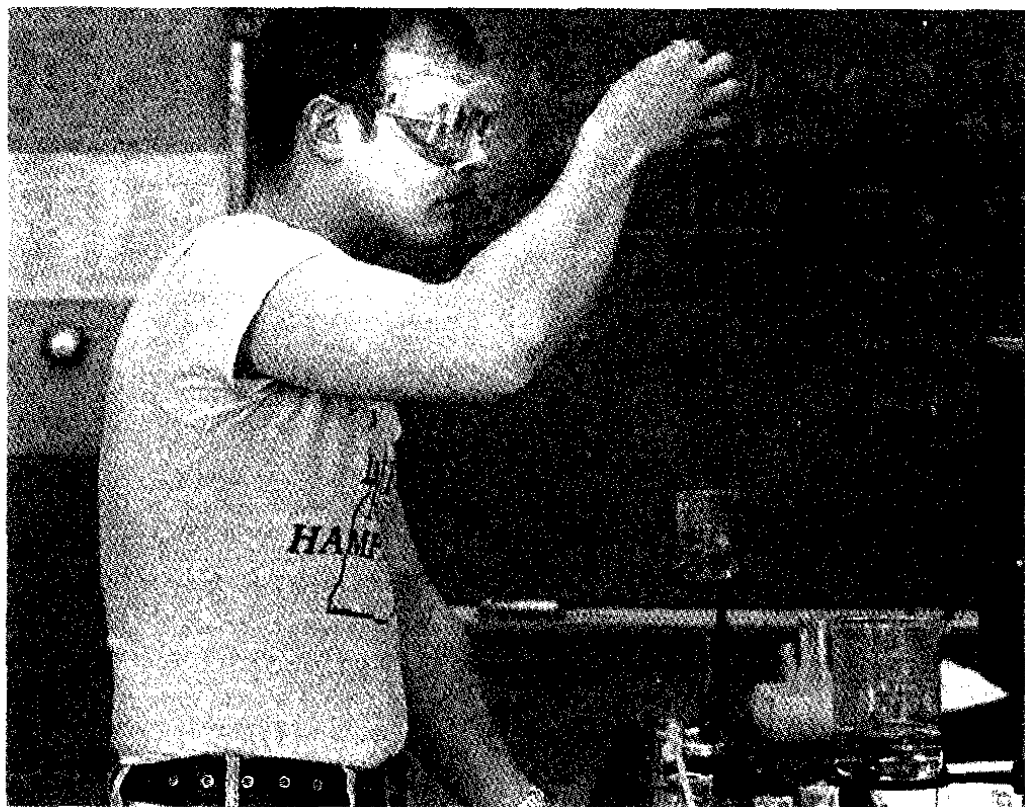
A study of the historical development of the sciences from earliest records to the mid-twentieth century. The methods of scientific discovery; the role of controversy, institutions, and governments; the interrelationship of science and technology; and the interaction of science and society are examined. Prerequisite: undergraduate major or minor in science, others by permission of the instructor. Cr 3.

#### **CHEM 511, 512, 513 Modern Topics in Chemistry**

These courses are designed to provide teachers of chemistry, physics and other sciences, with new ideas for presentation and explanation of chemical topics including, but not limited to: thermodynamics, energetics, kinetics, orbital theory, and states of matter. (The topics for presentation are selected according to the express wishes of each class.) The use of demonstration techniques and visual aids will be emphasized. Prerequisite: a year of college chemistry. Offered during summer session with a frequency determined by demand. Cr 3.

#### **CHEM 518 History of Chemistry**

A study of the history of chemistry which examines the development of the theories and the applications of the science. Consideration is also given to the interrelationship of advances in chemistry with advances in other sciences. The course provides an opportunity to integrate one's knowledge of chemistry. Prerequisite: 1) undergraduate major or minor in chemistry or 2) high school chemistry teacher. Others by permission of the instructor. Not offered every year. Cr 3.



# COMMUNICATION

Chairman of Communication Department: James A. Bethel, 3 Washburn Avenue, Portland.

Assistant Professors Bethel, Kivatsky, Sayers, Shedletsky.

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 which 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.

In order to understand the interdisciplinary nature of communication, majors may take courses in such fields as philosophy, business, sociology, psychology, education and political science. The Communication Internship Program allows majors to study a particular aspect of communication in the field. This allows for applying knowledge acquired in the classroom to a practical setting. Since communication is essential to most forms of human endeavor, communication majors may prepare for employment or further study in education, government, business, law, health care, and the media.

Students desiring a Bachelor of Arts degree in Communication will be required to complete a total of forty-five credit hours. All students are reminded that, in addition to meeting departmental requirements for a major, they must also meet the University's General Education Requirements.

Communication majors will examine the different levels of communication analysis by completing the following required courses:

**Required:**

COM 102	Introduction to Communication
COM 171	Interpersonal Communication
COM 290	Small Group Communication
COM 390	Organizational Communication
COM 495	Theories of Communication: Seminar

In addition, 15 credit hours must be selected from other departmental course offerings. These courses include the following:

**Elective:**

COM 100	Research
COM 150	Business Communication
COM 190	Media and Children
COM 272	Persuasion
COM 275	Theories of Language
COM 280	Mass Media and Human Interaction
COM 295	Communication Development in Children
COM 310	Nonverbal Communication
COM 320	Intercultural Communication
COM 420	Communication and Cognition
COM 430	Communication Internship
COM 490	Theories of Mass Communication
COM 491	Independent Study

Fifteen additional credit hours of coursework should be selected from departments which support the students' goals, and these must be approved by their advisors.

Those students who wish to enter graduate school will be advised, in addition to the above requirements, to take a sequence of research courses.

For students interested in minoring in Communication Theory the department offers the following minor:

COM 102	Introduction to Communication
COM 171	Interpersonal Communication

COM 290	Small Group Communication
COM 295	Communication Development in Children
COM 390	Organizational Communication
COM 495	Theories of Communication: Seminar

## COURSE DESCRIPTIONS

### COM 100 Research

A lecture course designed to acquaint students with the sources and methods of scholarly research. Course will provide students with basic knowledge to carry out projects in secondary and primary research, from conception to execution. Research project required. Cr 3.

### COM 102 Introduction to Communication

This course is designed to provide students with a conceptual framework of the basic elements of human communication. Students will examine different levels of communication analysis, learn to chart and analyze communication behavior, and discuss the effects of communication on themselves and others. Topics discussed will include communication theory, self-concept, interpersonal communication, nonverbal behavior, small group interaction, and mass communication. Students will be encouraged to adapt communication principles to their various fields of endeavor. Cr 3

### COM 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. Cr 3.

### COM 190 Media and Children

This course will examine media designed for the child audience. The class will view the wide spectrum of children's media, and critically examine them in terms of their potential prosocial and antisocial effects. The readings and discussions will cover various theories and research models that address themselves to the impact of media on the young audience. 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 which 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. Although this issue will be illusive, it is hoped that each student will give this topic adequate thought. 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 man's perception of reality, and its relation to the mind. Prerequisites: COM 102, any PLY 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. Cr 3.

### COM 290 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, problem solving, communication flow, and other variables relevant to actual small-group interactions. 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 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 non-verbal communication. Prerequisite: COM 102 or permission of the instructor. Cr 3.

### COM 320 Intercultural Communication

A study of communication as an agent of cooperation/conflict between cultures, such as between nations, races, and societies. Focus is upon institutional agencies, such as the U.N., and upon simulations of intercultural communication, such as R.B.



Fuller's *World Game*, the *Geophysical Year*, and others. Appropriate consideration is given to intercultural communication, such as cultural exchanges, diplomacy performing groups, lecturers, consultants and similar cross-cultural relationships. 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 290 or permission of the instructor. 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. Prerequisites: junior, senior or permission of the instructor. Cr 3.

**COM 430 Communication Internship**

An in-depth study of experiences in specific areas of communication which is conducted in the field. Students will focus their efforts in an area related to their choice of communication expertise (i.e. organizational communication, mass communica-

tion, intercultural communication). Prerequisite: a precise definition of the project, and director's consent. Cr var.

**COM 490 Theories of Mass Communication**

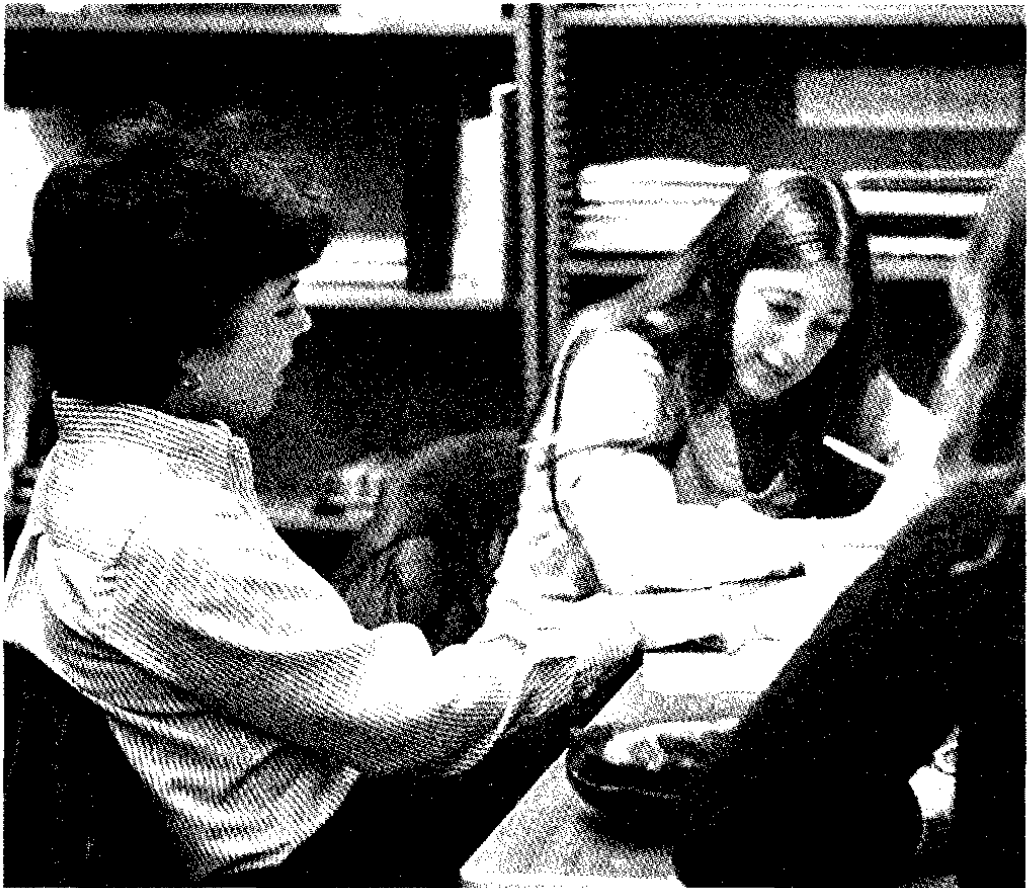
A discussion of significant factors related to communication theory. Contemporary theories of mass communication, the mass media, audience analysis, and the role of mass communication in society will be among the topics examined in the course. Students elect to examine an aspect of mass communication which 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.



# CRIMINAL JUSTICE

Coordinator of Criminal Justice: Piers Beirne, 120 Bedford Street, Portland.

The Criminal Justice Program is a four-year, multi-disciplinary program leading to a Bachelor of Arts degree. Located at 120 Bedford Street on the Portland campus, the program has grown rapidly, indicating strong student interest in this vital field, and strong University support for the program. Because course work consists of a liberal arts curriculum which focuses on the topic of criminal justice, students are provided a broad range of post-graduation employment opportunities, as well as a valid foundation for graduate study in the social sciences and law. Most students in the program are interested in law studies or in social service occupations related to criminal justice or juvenile justice.

## REQUIREMENTS

The criminal justice major requires 45 hours of course work: 15 hours in required criminal justice courses, 3 hours in research methods, and 27 hours in related areas of philosophy, sociology, social welfare, political science, history, and psychology. Majors are required to satisfactorily complete:

CJ	215	Criminology
CJ	301	Occupations and Occupational Roles
CJ	302	Criminal Law
CJ	310	Comparative Justice Systems
CJ	425	Senior Seminar

and:

Three (3) hours in a Methods of Research course approved by the program. (Presently approved courses: SOC 205, PSY 205, PSY 355, SWE 454-5)

and:

At least nine (9) hours in **each** of the three "units" of criminal justice:

## UNITS OF CRIMINAL JUSTICE

### 1) **The Social Context of Criminal Justice Systems** (9 hours required)\*

POL	210	Power and Change in American Society
POL	233	The American City
POL	251	Public Administration
POL	283	The American Judicial System
SOC	335	Penology and Corrections
SOC	337	Juvenile Justice
SOC	357	Bureaucracy in Modern Society
SWE	351	Human Services and the Consumer
SWE	364	Comparative Social Welfare Systems
HIST	235-450	Up to three hours, except HIST 321 and 333.

### 2) **Deviance** (9 hours required)\*

PLY	103	Introduction to Philosophy: Human Alienation
PSY	224	Adolescent Development
PSY	320	Psychology of Personality
PSY	333	Psychopathology
SOC	374	Mental Health and Mental Illness
SOC	375	Sociological Perspectives on Deviance

### 3) **Law and Social Control** (9 hours required)\*

PLY	210	Ethical Theories
PLY	240	Political Philosophy
PLY	260	Philosophy of Law
POL	284	American Civil Liberties
POL	286	Administrative Law
SOC	314	Social Control
SOC	336	Law and Society
SOC	371	Minority Groups
SWE	450	Social Problems and Social Welfare Policy
HIST	235-450	Up to three hours, except HIST 321 and 333

\*in most semesters, one or more special topics courses will be added to this list.

## MAJOR CREDIT AND GRADE POLICY

1. There are prerequisites for most major credit courses. See the departmental course listings for particulars.
2. Upon petition to the Coordinator, a student may be allowed substitute courses in the Units. Substitutions must be approved in advance.
3. Courses to be taken for major credit at other institutions must be approved in advance.
4. 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.

## COURSE DESCRIPTIONS

### **CJ 215 Criminology**

An analytic survey of theoretical orientations which contribute to a sociological understanding of the interrelationships among crime, law, and punishment; emphasis given to analysis of fundamental conflicts between law and social order as manifested in the organization and operation of the American criminal justice system. Also listed as SOC 215. Prerequisite: SOC 100 or SOC 170. Cr 3.

### **CJ 280 Legal Research**

An introduction to the methods and resources of legal research and analysis. Using the resources of the UM law school library students will become familiar with the concerns and processes of research, and especially case law research. This will include both briefing individual cases and locating, reviewing, and summarizing case law on specific substantive and/or procedural issues. The course provides an introduction to the fundamental structure of American law and an excellent foundation for further study and personal legal literacy. This is a one credit hour course offered over a seven week period during the semester. May be applied to any of the three "units" of the criminal justice major. Not open to Freshmen. Cr 1.

### **CJ 301 Occupations and Occupational Roles**

An analysis of the various occupations and professions that function within the criminal justice system. Each semester the course will focus on one occupation or occupational constellation — including police, bench and bar, and social services. Prerequisite: CJ 215. Cr 3.

### **CJ 302 Criminal Law**

An examination of the articulation and application of criminal sanctions by agencies of the modern state. Special attention is given to the conflict between the "due process" and "crime control" models of the criminal process. Also listed as POL 302 and SOC 338. Prerequisite: CJ 215. Cr 3.

### **CJ 310 Comparative Justice Systems**

A cross-national analysis of the form and substance of modern economic and political contexts in which these systems exist, as well as their historical development. Emphasis is placed on underlying differences in theories of social control in an attempt to

understand the role that justice systems and their personnel play in a variety of nation states. Also listed as POL 310 and SOC 317. Prerequisite: CJ 215. Cr 3.

### **CJ 350 Topics in Criminal Justice**

Specially developed courses exploring areas of interest and concern in depth. Among those courses currently considered are: Law and the Police, The Lawyer in Modern Society, Community-Based Corrections, Violence in American Society, Political Justice, Police Corruption, Juvenile Corrections, and Law and Personal Freedom. Offered as resources permit. These courses generally count toward completion of the "units" of the major. Prerequisite: CJ 215 or permission. Cr 3.

### **CJ 397 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.

### **CJ 410 Internship**

An opportunity for criminal justice majors to apply theoretical perspectives to actual field experience. Students will choose a topic for investigation with the advice, and under the direction of, a faculty member in the Criminal Justice program and will be expected to submit to the Program Coordinator both a research proposal and a final report on their activities. Prerequisite: advanced standing and permission of program Coordinator. Cr 3.

### **CJ 412 Research In Criminal Justice**

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.

### **CJ 425 Senior Seminar**

A seminar designed to integrate and synthesize the previous courses in the major sequence. Specific topics in criminal justice will be addressed from a broad interdisciplinary perspective. Open to senior criminal justice majors, or by permission of the instructor. Cr 3.

## INDEPENDENT, INTERN, AND RESEARCH PROJECTS

Independent study courses (CJ 397, CJ 410, and CJ 412) must be approved by the relevant department. The faculty advisor and student should submit a written proposal to the Coordinator of the Criminal Justice program, who will attach a recommendation to the department for its consideration. Independent study applications are available at the Criminal Justice Office.

## DECLARATION OF MAJOR

Consistent with the general policies of the College of Arts and Sciences, the Criminal Justice program does not normally accept *formal* declaration of 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 Criminal Justice Office. This listing, however, should be considered a declaration of intent.

This listing ensures that grade reports and other materials will be sent to the Criminal Justice Office and that the Coordinator will be listed as your major advisor.

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 Criminal Justice 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. The program also publishes a Student Handbook.

To obtain these publications, or for other information, write to:

Coordinator,  
Criminal Justice Program  
University of Southern Maine  
96 Falmouth Street  
Portland, Maine 04103  
or telephone: (207) 780-4105



# ECONOMICS

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

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.

## REQUIREMENTS FOR A BACHELORS OF ARTS DEGREE IN ECONOMICS

Satisfactory completion of the following curriculum will fulfill all of the requirements of the Core Curriculum at the University of Southern Maine. A detailed description of the Core Curriculum Requirements can be found on page 23 of this catalog.

I. General Foundation Courses		43 Crs.
A. Proficiency (See University Core Curriculum)		0 Crs.
B. Humanities		12 Crs.
1. English Composition	(3)	
2. Reasoning	(3)	
3. Literature	(3)	
4. Other Times/Other Cultures	(3)	
C. Fine Arts		6 Crs.
1. Performance-centered course	(3)	
2. History-centered course	(3)	
D. Social Science (Not to include ECON courses)		6 Crs.
E. Mathematics		12 Crs.
1. MS 109 Linear Systems	(3)	
2. MS 110 Elementary Mathematical Analysis	(3)	
3. MS 211 Probability	(3)	
4. MS 212 Statistics	(3)	
F. Natural Sciences (Lecture and Lab)		4 Crs.
G. Interdisciplinary (See University Core Curriculum)		3 Crs.

An optional, more rigorous mathematics sequence is available to those students who desire it. Students who wish to take MS 152 Calculus A and MS 153 Calculus B can substitute those two courses for MS 109 and MS 110. They must still take MS 211 and MS 212. An optional minor in mathematics also is available.

II. Course Requirements in Economics and Business		36 Crs.
A. Business		
1. ACC 201 Principles of Financial Accounting	(3)	
B. Economics		
1. ECON 201 Principles of Economics I	(3)	
2. ECON 202 Principles of Economics II	(3)	
3. ECON 301 Macroeconomic Analysis	(3)	
4. ECON 302 Microeconomic Analysis	(3)	
5. ECON electives which may include GEOG 303 and HIST 338	(21)	
III. Electives		41 Crs.
Minimum Total Required		120 Crs.

Economics course descriptions may be found in the School of Business, Economics and Management section of this catalog.

# ENGLISH

Chairman of English Department: L. Morrill Burke, 321 Bonney Hall, Portland.

Professors Hanna, Jaques, Rosen, Rutherford, Slavick, Weeks; Associate Professors Ashley, Baier, Burke, Carner, Carper, Coffin, Gish, Reuter, Selkin; Assistant Professor Abrams.

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, but all will extend the student's ability to engage in the kind of independent and creative thought and expression that is essential for success in fields as widely varied as the professions, industry, business, teaching, and the arts. For information and counsel regarding the major or appropriate and valuable 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 requirement in English, should begin with English 120 or 122, except when English 120 is waived. Courses numbered below 120 cannot be used to satisfy the Humanities core requirement. Many courses numbered between 121 and 500 may be elected as a second Humanities course without further prerequisites or with the instructor's permission.

The English major begins with a course in writing (100 or 101) and an introduction to the study of literature (120 or 122). The student then selects upper-level English courses (and up to six credits in approved courses of other departments) to complete the major requirements. The twelve required English courses will assure that the student has a familiarity with many of the outstanding literary achievements of Western culture, a knowledge of the history of the language, and a sensitive appreciation of works by the great representative writers and critics in all major periods of English and American literature. The 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 (HIST 101 and 102), History of England (HIST 261), a course in American history (HIST 131, 132, 133, or 134), a lower-level philosophy course, (PLY 101, 102, 103, 104, 106, 109), one or more History of Philosophy courses (PLY 310, 320, 330, 340, 350, 360), an art course (ARTH 101, 111, or 112), a music course (MUS 100, 120, or 121), and one or more theatre courses (THE 101, 340, 341, 361, or 362).

## INTERNSHIPS AND JOB OPPORTUNITIES

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 which 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.

## PREREQUISITES AND COURSE WAIVERS

ENG 100 or 101, or an equivalent or waiver, is a prerequisite for any English language or literature course, including ENG 120 and 122.

For general-interest courses numbered 130 to 199, ENG 100 or 101 (or an equivalent or waiver) and ENG 120 or 122 or permission of the instructor are prerequisites.

For courses numbered 200 to 299, prerequisites are ENG 100 or 101 (or an equivalent or waiver) and ENG 120 or 122.

For courses numbered 300 and above, prerequisites are ENG 100 or 101 (or an equivalent or waiver), ENG 120 or 122, and either the basic 200-level course in the area of study (indicated in the course listings by an asterisk before the number, as \*250) or permission of the instructor.

### 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 120 or 122 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.

Other prerequisites or waivers are indicated in the course descriptions.

## ENGLISH MAJOR PROGRAM IN ARTS AND SCIENCES

In addition to meeting English Department requirements, the B.A. candidate must also meet the General Education Requirements of the University.

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 100 or 101 or waiver; ENG 120 or 122 or waiver
2. At least 48 hours of courses acceptable for English major credit (numbered 200 or above). These courses must include ENG 220, 221, 230, 240, 250, 255, 260 or 261, 265, 270, 275, 280, and 290 or 291, and may include approved courses from other departments. One or more seminars are strongly recommended
3. The requirements of the English major program may be waived in favor of a self-designed major that is approved in advance by the English Department Curriculum Committee

## THE ENGLISH MINOR

The department offers an English minor which requires 18 credits of upper-level (200 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 100/101 and ENG 120/122 (or waivers):

1. A 200-level writing or language/linguistics course
2. Three 200-level literature courses (one must be selected from those numbered 220 to 265, one from 270 to 291)
3. One 300- or 400-level course

Further information about the minor is available in the English Department offices.

## TEACHING SPECIALTIES FOR EARLY CHILDHOOD AND ELEMENTARY EDUCATION

Students in Early Childhood or Elementary Education in the College of Education may complete 30 hours of English in an approved program for an academic major or 18 approved hours for an academic minor. Details of such programs may be obtained from the appropriate faculty advisers in the College of Education.

## COURSE DESCRIPTIONS

Courses are scheduled regularly in one-, two-, and three-year cycles. The course descriptions give the next date for most courses. Modifications may be made to accommodate staffing needs and student demand.

### 100-Level Courses

#### ENG 100 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. Students may not take both ENG 100 and 101 for credit. This course cannot be used to satisfy a Humanities requirement. (Every semester). Prerequisite: writing proficiency.

Cr 3.

#### ENG 101 Independent Writing

Students who realize that they need help to improve their writing and who are willing to work in-

dependently will profit from this course, which is conducted primarily in individual weekly conferences — though classes meet occasionally. Problems of style and presentation as well as minor mechanical difficulties are focussed on. For well-motivated students in any class. To complete the course successfully, the student must pass a departmental exit examination. Students may not take both ENG 100 and 101 for credit. This course cannot be used to satisfy a Humanities requirement. (Every semester). Prerequisite: writing proficiency.

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 103 Basic Grammar and Usage**

This course is designed to teach the student current practice in grammar and usage as opposed to formal grammar. The student will master the many matters of agreement, punctuation, etc., needed in writing college papers. Cr 1.

### **ENG 120 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. (Every semester). Prerequisite: ENG 100 or 101 or waiver. Cr 3.

### **ENG 122 Introduction to Literature for English Majors**

Like ENG 120, this course gives attention to prose fiction and drama, but its primary emphasis is on the intense reading of selected poems from different periods of English literature; various critical approaches are introduced and the careful writing of critical papers is stressed. Recommended for students with a good background in literature, and particularly for freshmen who are declared or prospective English majors. (Every spring). Prerequisite: ENG 100 or 101 or waiver. Cr 3.

### **ENG 130 The Literature of Sport**

Contemporary fiction, poetry, and drama on The Game, its players and watchers, its heroes and losers, its joy and sadness reflected in the works of such writers as Cheever, Updike, Algren, Wain, Roth, Shaw, Schulberg, Wright, Ellison, McCullers, Dickey, Williams, Moore, Ferlinghetti, Sillitoe, and many others. The social and cultural implications of sports, now and in the immediate future, will also be weighed. These include the ritualistic side of competition and spectacle; the blurring of "professional" and "amateur"; flaws in America's hero image; kid teams and adult ambitions; college conferences and academic standards; racism and nationalism in the Olympics; thrills, violence and gate receipts; winner-loser psychology; sex stereotypes; mass versus elite leisure; machismo politics and "femlib." Readings will include two anthologies, a novel, a play, and a collection of recent essays by social anthropologists. (Fall, 1982). 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. (Spring, 1983). Cr 3.

### **ENG 140 Great Poems of England and America**

Readings and class discussions of many of the best-known poems in the English language. The course is designed for non-majors, and may not be taken for English major credit. Students will learn about the

principal periods in English and American poetry, and will become aware of changes in preferred styles and subjects for poems. The focus of the course, though, is on the informed appreciation of many poems that help make up our cultural heritage. Shakespeare, Milton, Pope, Wordsworth, Keats, Dickinson, Frost, and other men and women writers up to the present will be studied. (Spring, 1983). 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, and Popular Semantics. Descriptions of current offerings are available in the English offices. More than one section may be taken for credit. Cr 3.

## **Writing Courses**

### **ENG 200 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. (Every spring). Prerequisite: a grade of B in ENG 100 or 101, or permission of the instructor. Cr 3.

### **ENG 201 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. (Every fall). Prerequisites: ENG 100 or 101 and ENG 120. Cr 3.

### **ENG 202 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. (Every fall). Suggested preparation: ENG 201. Cr 3.

### **ENG 203 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. (Every spring). Suggested preparation: ENG 201. Cr 3.

### **ENG 204 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 101 and THE 361 or 362 or 363. This course is also listed as THE 335. Cr 3.



### ENG 209 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 semester). Cr 3.



### ENG 302 Fiction Workshop

An advanced course requiring the completion of short stories or a substantial part of a novel. (Every fall). Prerequisites: ENG 202 and instructor's permission. May be repeated for 3 additional credits with instructor's permission. Cr 3.

### ENG 303 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. (Every spring). Prerequisites: ENG 203 and instructor's permission. May be repeated for 3 additional credits with instructor's permission. Cr 3.

### ENG 400 Independent Study in Creative or Expository Writing

Cr var.

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 General Education Requirements.

CLS	281	The Golden Age of Greece
CLS	282	Rome, from Republic to Empire
FRE	253	Masterpieces of French Literature I
FRE	254	Masterpieces of French Literature II
FRE	255	Contemporary French Thinkers
FRE	256	Avant Garde Theatre in France
FRE	257	18th Century Literature in France and England
GMN	258	The German Novelle
SPN	259	Masterpieces of Spanish Literature

For descriptions, see Foreign Languages and Classics section of this catalog.

## Journalism Courses

### ENG 210 Newswriting

This course includes news and feature writing with intensive practice in journalistic writing techniques, accuracy, judgment and style. (Every fall). Prerequisite: ENG 100/101. Cr 3.

### ENG 310 Advanced Newswriting

A continuation of Newswriting. (Every spring). Cr 3.

### ENG 410 Independent Study in Journalism

Cr var.

## Masterpiece and Other Courses

### ENG 220 World Masterpieces I

A study of selected major works of classical and Biblical times which will provide students with a background for understanding the most influential books of our culture. Included are Homer, Plato, Greek dramas, Virgil, and the Old Testament. (Every fall). Cr 3.

### ENG 221 World Masterpieces II

A continuation of ENG 220 into the Renaissance. Included are the New Testament, Dante, and Cervantes. (Every spring). Prerequisite: ENG 220 or permission of instructor. Cr 3.

### ENG 223 The Epic Hero in Ancient Literature

Intensive readings in English translations of *Gilgamesh*, *Iliad*, *Odyssey*, *Argonautica*, *Aeneid*; discussion, papers. (Also listed as Classics CLS 251.) Cr 3.

### ENG 224 The Tragic Hero in Ancient Literature

Intensive reading of selected plays in English translation by Aeschylus, Sophocles, Euripides, Seneca; discussion, papers. (Also listed as Classics CLS 252.) 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.

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 230 History of the English Language

This course includes a survey of the prehistory of the language as well as a detailed study of the Old, Middle, and Modern English and the forces which shaped these stages. Some methods of modern linguistic science are utilized in examining current usage. Change and development of the language are emphasized. (Every fall). Cr 3.

### ENG 231 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. (Spring, 1983). Cr 3.

### ENG 232 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. (Spring, 1984). Cr 3.

### ENG 233 Structural Linguistics

The course first analyzes the structure of many languages: i.e., Mexican and Central American Indian languages, including dialects of Chontal, Aztec, Mayan. The course uses the acquired analytical skills to explore the nature of language itself. (Fall, 1983). Cr 3.

### ENG 234 Semantics

Interpretation of literature by means of analysis of the language used. Recommended for prospective teachers of literature and English. (Fall, 1982). Cr 3.

### ENG 333 Structural Linguistics and Culture

The course analyzes the languages and culture (art, religion, poetry) of preliterate societies, particularly the American Indian. (Spring, 1984). 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. Typical subjects: Old English, Beowulf, Modern Linguistic Theorists. Cr 3.

## Criticism Courses

### ENG 240 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. (Every spring). Cr 3.

### ENG 341 Critical Approaches to Literature

This course will provide a basic introduction to the

major critical interpretive perspectives indispensable for the sensitive reader (moral-philosophical, formalistic, psychological, mythological, archetypal, and exponential). It will be structured around a close reading of specific works from several genres. It will also study literary terms, prosody, prose style, and the relation of literature to the other arts. (Spring, 1983). 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: myth and myth criticism, psychoanalytic theory as myth. Cr 3.

## Medieval Period

### ENG 250 Chaucer and the Medieval World

Selections from the early poetry and intensive reading in the *Canterbury Tales*. Attention also given to the literary and historical background. (Every fall). Cr 3.

### ENG 350 Middle English Literature Exclusive of Chaucer

Extensive readings in major philosophical background texts and the literature of 14th century England exclusive of Chaucer. (Spring, 1984). Cr 3.

### ENG 351 Medieval Epic and Romance

The background and development of the medieval epic and romance, including English, Germanic, French, and Italian works. (Spring, 1985). 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. (Spring, 1983). Cr 3.

### ENG 450 Independent Study in Medieval Literature

Cr var.

### ENG 451 Seminar in Medieval Studies

An advanced course focusing on individual writers or particular literary themes or problems. Emphasis is on applying various critical and scholarly approaches to important, limited subjects. Cr 3.

## Renaissance

### ENG 255 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 spring). Cr 3.

**ENG 356 Milton**

Study of Milton's major poetry and selected prose with attention to critical and historical background. (Fall, 1982). Cr 3.

**ENG 357 British Drama to 1642**

Shakespeare's predecessors, contemporaries, and followers to 1642. (Fall, 1983). 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.

**Shakespeare****ENG 260, 261 Shakespeare**

ENG 260 and 261 each feature close readings of approximately seven of Shakespeare's plays, and focus attention both on philosophical and theatrical 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 260 will include a section on the major history plays (*Richard II*; 1, 2 *Henry IV*); ENG 261 will include a section on the dramatic fairytales or "romances" that Shakespeare wrote at the end of his career (*The Winter's Tale*; *The Tempest*). Beyond that the courses will include the following major plays assigned to each course:

ENG 260: *As You Like It*, *Twelfth Night*, *Hamlet*, *Macbeth*. ENG 261: *Romeo and Juliet*, *Midsummer Night's Dream*, *Othello*, *King Lear*.

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 Period****ENG 265 The Neoclassical Age**

The principal writers from the Restoration to the Romantic Period are studied. Emphasis is on the achievements of major figures, including Dryden, Pope, Swift, and Johnson. (Every spring). 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 hero. Playwrights studied will include Davenant, Dryden, Otway, Etherege, Shadwell, Cibber, Wycherley, Congreve, Farquhar. (Fall, 1982). Cr 3.

**ENG 367 Masterpieces of English Satire**

A thorough exploration of its backgrounds in classical literature and an attempt to define and understand satire as a mode will be followed by readings and discussions in depth of the most important satires in English. Works to be read will include at least the following: Langland's *Piers Plowman*, Chaucer's *Sir Thopas*, Butler's *Hudibras*, Dryden's *Absalom and Achitophel*, Swift's *Gulliver's Travels*, Pope's *Dunciad*, and Gay's *Begger's Opera*. Cr 3.

**ENG 369 The Earlier English Novel**

The principal novelists from Defoe through Smollett. (Fall, 1983). 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.

**Romantic Period****ENG 270 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*. (Every fall). Cr 3.

**ENG 370 Fiction of the Romantic Period**

The novels of Jane Austen; readings in Maturin, Peacock, Edgeworth, Lewis, Godwin, Mary Shelley, Scott. (Spring, 1984). 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 problems. Emphasis is on applying various critical and scholarly approaches to important, limited subjects. Typical subjects: William Blake, the gothic novel, Wordsworth and Coleridge. Cr var.

**Victorian Period****ENG 275 Eminent Victorian Writers**

Major writers of the Victorian era, including Tennyson, Browning, Arnold, George Eliot, Harriet Martineau, Thackeray, and Dickens are studied; attention is given to Victorian controversies; emphasis is on the novel as the greatest achievement of the period. (Every fall). Cr 3.

**ENG 375 The Victorian Novel**

The principal novelists from Austen to Hardy. (Spring, 1984). Cr 3.

**ENG 377 Victorian Poetry**

Extensive reading in the poetry of Tennyson, Browning, Arnold, Swinburne, Clough, the Rossetts, Meredith, Morris, Hardy, Hopkins, and

Housman. Lectures and class discussions will involve several critical approaches — biographical, sociological, psychological, archetypal, symbolical, formalistic and exponential. Collateral readings in 19th century intellectual history — the Romantic revolt, the Industrial Revolution, the science-religion debate, aestheticism, artistic alienation, Utilitarianism, and Darwinism. Brief oral reports and two short papers. (Spring, 1983). 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.

## American Literature

**ENG 280 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. (Every spring). 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. (Spring, 1983). Cr 3.

**ENG 382 The Earlier American Novel**

An historical survey of the American novel from Charles Brockton Brown to Henry James. In Professor Burke's sections a term paper is required for an honor grade. (Fall, 1983). 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. 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.

## Modern Literature

**\*ENG 290 The Modern Age: British**

The purpose of this course is to define and discuss the nature of "Modernism" as it developed in 20-century Britain. Both technical change and in-

novation 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. (Every fall). Cr 3.

**ENG 291 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 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, and selected contemporary poets. (Every spring). Cr 3.

**ENG 295 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 specifically to women's own lives. It emphasizes three major areas: courtships and marriage, the world of work and politics, and awakening to individual self-realization. We will consider such questions as the changing roles and perspectives of women, distinct points of view of women writers, and a developing feminist perspective. The course will aim at considering a range of views and attitudes, including images of men and the implications of changing roles for both men and women as they are reflected in women writers. Readings will be drawn primarily from 19th and 20th century writers and will compare early and late treatments of specific themes. Jean Rhys's *Wide Sargasso Sea*, for example, is a modern version of Charlotte Bronte's *Jane Eyre*. Reading them together illuminates important developments in women's thought. Readings will include works by Jane Austen, George Eliot Charlotte Bronte, Elizabeth Gaskell, George Gissing, Virginia Woolf, Jean Rhys, Doris Lessing, Kate Chopin, and selected poets. Requirements are several essays and a final exam. (Every spring). 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. (Spring, 1983).

Cr 3.

#### **ENG 391 Modern American Poetry**

This course will focus on two or three major poets such as Stevens, Frost, Marianne Moore, Pound, and Williams. 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 Strand, Snyder, 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. (Fall, 1983).

Cr 3.

#### **ENG 392 Twentieth Century British Novels**

Selected novels from the late 19th century to the present. (Spring, 1985).

Cr 3.

#### **ENG 393 Twentieth Century American Novels**

An historical survey of American novels beginning around 1900. In Professor Burke's sections a term paper is required for an honor grade. (Spring, 1984).

Cr 3.

#### **ENG 394 Experimentation in Modern Poetry**

This course explores the tradition of experimentation in modern poetry from Rimbaud to the present day. It draws from a range of figures such as Cavafy, Ponge, and Calvino in an effort to bring into focus the achievement of such English and American figures as Eliot, Williams, Auden, Moore, and contemporaries like Dorn and Berryman. (Spring, 1984).

Cr 3.

#### **ENG 395 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, therecent 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 are confronted: the corruption of reality by dream; personal inadequacy, alienation, and paranoia; self-deceit; varieties of ignorance and cowardice; the moral insight afforded the artist; violence as a mode of self-discovery. Students are responsible for a term paper, a classroom report, and weekly review of some

critical article. (Fall, 1982). Prerequisite: junior class standing or permission of the instructor.

Cr 3.

#### **ENG 396 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. (Spring, 1983). Prerequisite: junior class standing or permission of the instructor.

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. (Fall, 1983).

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 problems. Emphasis is on applying various critical and scholarly approaches to important, limited subjects. Typical subjects: Joyce's *Ulysses*, modern Scottish literature.

Cr 3.

#### **ENG 492 Seminar in Modern American Literature**

An advanced course focusing on individual writers or particular literary themes or problems. Emphasis is on applying various critical and scholarly approaches to important, limited subjects. Typical subjects: the image of Blacks in American literature, the fugitive poets, Fitzgerald, Hemingway, and Faulkner.

Cr 3.

## **Experimental Courses**

Occasionally the English Department offers special courses not listed individually in the catalog. They appear in the current Schedule of Courses under the designation 199, 299, 399, or 499. Such courses will usually be experimental: pursuing original research, testing new alignments of figures or materials, or trying out courses before including them in the department curriculum.

# FOREIGN LANGUAGES AND CLASSICS

Chairman of Foreign Languages and Classics Department: Mara Ubans, Luther Bonney Hall, Portland

Professor Duclos; Associate Professors Crochet, Dalvet, di Benedetto, Lepelley, Rolfe, Ubans; Assistant Professor Plasencia

## I. COURSES IN ENGLISH TRANSLATION

The Foreign Language and Classics Department offers a number of courses in English translation requiring no previous knowledge of a foreign language and open to any student interested in foreign or classical literature and civilization. These courses are numbered 281-300. Courses in this category may be credited toward either the French major or minor or the German or Spanish minors if the work of the course, including papers and readings, is undertaken in the target language.

## II. BILINGUAL STUDENT

Franco-American students and students with Hispanic, German, or Italian backgrounds are encouraged to consult the instructors of the respective languages to determine their level of study.

## III. ADVANCED PLACEMENT: CREDIT BY EXAMINATION

It is the policy of the Department of Foreign Languages and Classics to grant 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 chairman of the department.

## IV. LANGUAGE CREDIT HOURS IN ELEMENTARY AND INTERMEDIATE FRENCH OR GERMAN COURSES

It is the policy of the Department that a student may receive 6 credit hours but no more for the elementary and intermediate levels each, if he or she takes courses in these languages in any combination of sequence (this does not apply to students in FRE 107-108):

Elementary level:	101		102	(= 6 cr.)
or	103	or	105	(= 3 cr.)
Intermediate level:	201		202	
	106			(= 3 cr.)

## V. LANGUAGE PROGRAMS

The department offers programs in French, German, Classical Greek, Italian, Latin, and Spanish. Beginners courses (101-102) are for students who have never studied the language. 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. Students whose background does not fit either of these categories should consult an instructor in foreign languages before registering. Courses numbered 105-106 are designed for those students who desire to acquire reading proficiency in French or German for any of the following purposes: research in their fields, graduate school language requirement, cultural enjoyment.

## VI. CONVERSATION

Besides the oral practice in the classroom, students are urged to use the language laboratory located on the Portland campus in Payson Smith Hall, Room 203, and open every weekday from 9 a.m. to 3 p.m. French students who have already reached the level of literature courses may enroll in conversation courses meeting once a week (207-208) which may be repeated for one credit each semester.

## VII. LANGUAGE LAB

Students enrolled in beginners 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 P/F 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 chairman.

However, all students are welcome to use the language lab facilities for their own purposes, without credit.

### VIII. SELF-DESIGNED MAJOR IN LANGUAGES

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 to prepare their application for approval by the self-designed major committee, we present four possible models:

#### Major in Foreign Languages

For a Major in Foreign Languages, a student may choose any two of the following languages and take these courses in the language of their choice:

- Spanish: SPN 321, 322, 351, 352, 281 (15 credits)
- German: GMN 321, 322, 351, 352, 281 (15 credits)
- French: FRE 321, 323, 291, or 292, any two of 361, 362, or 363 (15 credits)
- Classical Languages: GRK 251, 252, LAT 251, 252 and either GRK 470 or LAT 470 (15 credits)

In addition the student is required to take two Foreign Language Core Courses bringing the total of credits required to 36.

#### Major in Classical Studies (with a concentration in either Greek or Latin)

Core Course	Credit Hours
	3
<b>Language and Literature</b>	
<b>(Concentration in Greek)</b>	
GRK 251 (Introduction to Literature)	3
GRK 252 (Introduction to Literature)	3
GRK 470 (Independent Study)	6
	12
<b>(Concentration in Latin)</b>	
LAT 251 (Introduction to Literature)	3
LAT 252 (Introduction to Literature)	3
LAT 470 (Independent Study)	6
	12
LAT 251 (Introduction to Literature)	3
LAT 252 (Introduction to Literature)	3
	6
<b>Civilization and Literature in Translation</b>	
CLS 281 (Epic)	3
CLS 282 (Tragedy)	3
CLS 291 (5th Century Athens)	3
	9
<b>Related Courses (electives)</b>	
ARTH 111 (History of Art I)	3
ARTH 212 (Classical Art)	3
HIST 231 (Ancient History I)	3
HIST 232 (Ancient History II)	3
PLY 310 (Ancient Philosophy)	3
POL 289 (Political & Social Thought I)	3
	6
Total required for major	36

#### Major in German Studies

Core Course	Credit Hours
	3
<b>German Language and Literature</b>	
GMN 321-322 Composition/Conversation	6
GMN 351-352 Survey of Literature	6
GMN 281 The German Novelle	3
GMN 470 Independent Study	3
	18

**Social Sciences**

HIST	244	20th Century Europe	
HIST	256	World War I and World War II: European War & Diplomacy	
HIST	272	Germany to 1945	any 3
HIST	273	Germany since Hitler	
HIST	412	Totalitarianism: Nazism & Communism	

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9**Humanities**

PLY	340	History of Late Modern Philosophy	
PLY	275	Theories of Language	
ARTH	411	Philosophy of Art	
MUS	220	History of Music III	any 2
ENG	341	Critical Approaches to Literature	
ENG	396	Modern Novel: Themes & Methods	

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6

Total required for major

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36**Major in Hispanic Studies**

			<b>Credit Hours</b>
<b>Core Course</b>			3
Spanish Language & Literature			
SPN	321-322	Composition/Conversation I & II .....	6
SPN	351-352	Survey of Hispanic Literature I & II .....	6
SPN	281	Masterpieces of Hispanic Literature.....	3
SPN	470	Independent Study .....	3
			<hr/> 18
<b>History</b>			
HIST	181-182	Latin America I & II .....	6
<b>Social Sciences</b>			
HIST	381	Latin America & the United States	
HIST	383	The Society & Culture of Latin America	any 2
ANY	221	South American Indian	
			<hr/> 6
<b>Humanities</b>			
ART	311	Topics in Art History	
ART	315	Western Art (1790-1880)	select 1
PLY	275	Theories of Language	
			<hr/> 3
Total			<hr/> 36

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

**IX. FRENCH MAJOR**

The department offers a major in French:

**Core Course** (to be announced by the department) .....3**Credit Hours****Language**

FRE	321	French Composition/Workshop in Writing French.....	3
FRE	323	French Conversation/Workshop in Speaking French .....	3
FRE	305	Phonetics .....	3
			<hr/> 9

**Civilization**

FRE	291	Civilization, historical approach .....	3
or FRE	292	Contemporary France .....	3

**Literature**

FRE	361	The Novel	
FRE	362	Poetry	any 2
FRE	363	Theatre	

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6



FRE	460	Quebecer Literature		
FRE	461	17th Century Literature		
FRE	462	18th Century Literature	any2	
FRE	463	19th Century Literature		
FRE	464	20th Century Literature		6
FRE	465	Survey of French Literature		3
Total required courses				15
				30

**Electives**

Any of the courses above or

FRE	221	Practice in Writing		6
FRE	223	Practice in Conversation		
Total for the Major				36

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 conversation courses FRE 207 and 208. 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.

All student 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 College of Arts and Sciences, as well as the University's General Education Requirements.

**X. MINORS FOR STUDENTS IN THE COLLEGE OF EDUCATION  
(Elementary Education)**

Future teachers of foreign languages need a solid foundation in their target language so that they will be ready to teach it competently. The following programs are devised to assure that they reach such a goal.

**French Minor** 12 credits at the 300 level or above. (18 including FRE 201-202)

<b>Required courses:</b>			<b>Credit Hours</b>
FRE	321	Workshop in Writing French.....	3
FRE	323	Workshop in Speaking French.....	3
FRE	361, 362 or 363	French Novel, Poetry or Theatre.....	3
<b>Elective courses:</b>			
FRE	305	Phonetics	
any French Literature course on the 300-400 level			3
			12

**German Minor** 12 credits at the 300 level or above. (18 including GMN 201-202)

<b>Required Courses</b>			<b>Credit Hours</b>
GMN	321 and 322	Composition and Conversation I and II.....	6
GMN	351 and 352	Introduction to German Literature I and II.....	6
			12

**Spanish Minor** 12 credits at the 300 level or above. (18 including SPN 201-202)

<b>Required Courses</b>			<b>Credit Hours</b>
SPN	321 and 322	Composition and Conversation I and II.....	6
SPN	351 and 352	Introduction to Spanish Literature I and II.....	6
			12

**XI. MINORS FOR STUDENTS IN THE COLLEGE OF ARTS AND SCIENCES**

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 9 semester hour credits at the 300 level (200 level in Classics) or above, through courses selected from the following.

#### **Classics Minor (Greek)**

GRK	251, 252	Introduction to Greek Literature I and II
GRK	310	Seminar in Greek Literature
CLS	291	The Golden Age of Greece

#### **Classics Minor (Latin)**

LAT	251, 252	Introduction to Latin Literature I and II
LAT	310	Seminar in Latin Literature
CLS	292	Rome, from Republic to Empire

#### **French Minor**

FRE	321	Workshop in Writing French
FRE	323	Workshop in Speaking French
FRE	305	French Phonetics
FRE	361, 362 or 363	French Novel, Poetry or Theatre

#### **German Minor**

GMN	321, 322	German Composition and Conversation I and II
GMN	351, 352	Introduction to German Literature I and II
GMN	281	The German Novelle

#### **Spanish Minor**

SPN	321, 322	Spanish Composition and Conversation I and II
SPN	351, 352	Introduction to Spanish Literature I and II

## **XII. INDEPENDENT STUDY**

Independent study is available to qualified students under the numeration 470, with permission of the instructor and the department chairman. Cr var.

## **COURSE DESCRIPTIONS**

### **Literature and Civilization in English Translation**

#### **CLS 283 The Epic Hero in Ancient Literature**

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

#### **CLS 284 The Tragic Hero in Ancient Literature**

Intensive reading of selected plays in English translation by Aeschylus, Sophocles, Euripides, Seneca; discussion, papers. Cr 3.

#### **CLS 291 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. Cr 3.

#### **CLS 292 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. Cr 3.

#### **FRE 281 Masterpieces of French Literature I**

(in English Translation)

Novels and plays representative of French literature from the beginning of the XIXth century to the present. No knowledge of French is necessary. Cr 3.

#### **FRE 282 Masterpieces of French Literature II**

(in English Translation)

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 283 Contemporary French Thinkers**

(in English Translation)

Readings and discussion of recent works of French literature selected for their philosophical and ethical importance: Saint-Exupery, Sartre, Camus, de Beauvoir, Teilhard de Chardin and others. No knowledge of French is necessary. Cr 3.

#### **FRE 284 Avant Garde Theatre in France**

(in English Translation)

Study of plays and theoretical texts in English translation from Jarry to Beckett. No knowledge of French is necessary. Cr 3.

#### **FRE 285 18th Century Literature in France and England**

A study of the emergence of the bourgeoisie and its relationship to literature in 18th century France and neighboring countries. The social and moral evolution of the family, sentimentalism, and middle class revolt will be discussed. Special attention will be paid to the literary interchange between France and England. Readings in Prevost, Marivaux, Rousseau, Diderot, Richardson, Goldsmith, Sterne, Goldoni. In English. Cr 3.

#### **FRE 291 French Civilization: An Historical Approach**

Aspects of the society, institutions, arts, literature, and religion of France, from the origins to the end of

the XIX century. No French is spoken in the classroom. Cr 3.

**FRE 292 French Civilization: Contemporary France**  
Institutions, education, society, economy, politics of France. No French is spoken in the classroom. Cr 3.

**GMN 281 The German Novelle**

(in English Translation)

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.

**SPN 281 Masterpieces of Spanish Literature**

(in English Translation)

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

**GRK 101 Beginning Greek I**

Fundamentals of classical Greek. Emphasis upon acquisition of reading knowledge. Cr 3.

**GRK 102 Beginning Greek II**

Selections from Euripides' *Alcestis*. Prerequisite: GRK 101. Cr 3.

**GRK 251 Introduction to Greek Literature I**

A study of Plato's *Apology*, *Crito* and selections from the *Phaedo*. Prerequisite: GRK 102 or equivalent. Cr 3.

**GRK 252 Introduction to Greek Literature II**

A study of selected books from Homer's *Iliad* or *Odyssey*. Prerequisite: GRK 251. Cr 3.

**GRK 310 Seminar in Greek Literature**

Readings in Greek prose and poetry; a different author will be read each semester. Translation, supplementary reading, paper. Prerequisite: GRK 252. Cr 3.

**GRK 470 Independent Study.**

**LAT 101 Beginning Latin I**

Fundamentals of the Latin language. Cr 3.

**LAT 102 Beginning Latin II**

Continuation of LAT 101. Cr 3.

**LAT 251 Introduction to Latin Literature I**

Selected readings from masters of Latin prose and poetry. Prerequisite: LAT 102 or equivalent. Cr 3.

**LAT 252 Introduction to Latin Literature II**

Continuation of LAT 251. Cr 3.

**LAT 310 Seminar in Latin Literature**

Readings in Latin prose and poetry; a different author will be read each semester. Translation, supplementary reading paper. Prerequisite: LAT 252. Cr 3.

**LAT 470 Independent Study**

### French

**FRE 101 Beginning French I**

Beginner's course in French. Initiation in the four

skills of language learning: listening comprehension, speaking, reading, and writing. Students are encouraged to register also for laboratory practice (one more credit). Cr 3. (With lab, Cr 4.)

**FRE 102 Beginning French II**

Continuation of FRE 101. Cr 3. (With lab, 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 131. Cr 3.

**FRE 105 Reading French**

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 106 Readings in French**

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. Cr 3.

**FRE 107-108 Intensive Beginning French**

Intensive beginner's course, in the four skills of language learning: listening comprehension, speaking, reading and writing, with abundant opportunity for conversation in the classroom and for laboratory practice. The course meets every weekday for a 50-minute period. Cr 5.

**FRE 201 Intermediate French I**

Review of grammatical structures. Further development of listening comprehension, speaking, reading and writing skills. Students are encouraged to register also for laboratory practice (one more credit). Prerequisite: FRE 102, FRE 103, or two years of high school French. Cr 3. (With lab, Cr. 4.)

**FRE 202 Intermediate French II**

Continuation of FRE 131. Cr 3. (With lab, Cr. 4.)

**FRE 207 The Practice of Conversation I**

For advanced students needing oral practice. This course, which meets once a week, is especially recommended for French majors who may take it repeatedly for credit. Prerequisite: FRE 223 or equivalent. Cr 1.

**FRE 208 The Practice of Conversation II**

Continuation of FRE 207. Cr 1.

**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 202 or equivalent. Cr 3.

**FRE 223 Practice in Conversation**

Intensive oral practice, expository reports, debates, class discussions. Prerequisite: FRE 202 or equivalent. Cr 3.

**FRE 251 Introduction to French Literature**

Reading and discussion of representative literary works in the major genres (novel, drama, poetry). Techniques of close reading and explication de texte are studied. Designed to give a general background for the major as well as to provide a representative sampling for the non-major. Prerequisite: FRE 202 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 202 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 251 or equivalent. Cr 3.

**FRE 362 French Poetry**

A study of works by famous French poets and of the critical approaches to French poetry. Prerequisite -FRE 251 or equivalent. Cr33.

**FRE 363 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 251 or equivalent. Cr 3.

**FRE 460 Litterature Quebecoise**

Reading and discussion of novels, short stories, poems, and plays by contemporary French Canadian writers Gabrielle Roy, Gerard Bessette, Jacques Godbout, M. Claire Blais, Marcel Dube, Saint-Denis Garneau, Alain Grandbois, and P.M. La-pointe. Prerequisite: FRE 231. 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. Cr 3.

**FRE 470 Independent Study****German****GMN 101 Beginning German I**

Beginner's course in German. Initiation in the four skills of language learning: listening comprehension, speaking, reading, and writing. Students are encouraged to register also for laboratory practice (one more credit). Cr 3. (With lab, Cr 4.)

**GMN 102 Beginning German II**

Continuation of GMN 101 :Cr 3. (With lab, Cr 4.)

**GMN 103 Review of Elementary German**

Elementary German for students with some previous study of the language who feel the need for a refresher course before entering GMN 201. If possible, register also for laboratory practice (one more credit). Cr 3. (With lab, Cr 4.)

**GMN 105 Reading German I**

Elementary course in German aiming exclusively at a reading knowledge of the language. No German spoken. Cr 3.

**GMN 106 Reading German II**

Further practice of the reading skill acquired in GMN 105. Recommended also as preparation for

language tests required by graduate schools. Prerequisite: GMN 105 or instructor's permission. Cr 3.

**GMN 201 Intermediate German I**

For students who have completed GMN 102 or 103 or the equivalent. Review of grammar. Classroom practice aiming at fluency in speaking and reading. Students are encouraged to register also for laboratory practice (one more credit). Prerequisite: GMN 102 or 103. Cr 3. (With lab, Cr 4.)

**GMN 202 Intermediate German II**

Continuation of GMN 201. Cr 3. (With lab, Cr 4.)

**GMN 321 Composition and Conversation in German I**

Systematic training in correct pronunciation and usage, and in vocabulary building, with written and oral practice and work in the laboratory. Prerequisite: GMN 202 or equivalent. Cr 3.

**GMN 322 Composition and Conversation in German II**

Continuation of GMN 321. Cr 3.

**GMN 351 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: GMN 202 or GMN 106 or an equivalent reading ability of German. Cr 3.

**GMN 352 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: GMN 202 or GMN 106 or an equivalent reading ability of German. Cr 3.

**GMN 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. Cr 3.

**ITA 102 Beginning Italian II**

Continuation of ITA 101. Cr 3.

**ITA 201 Intermediate Italian I**

Reading of short stories and essays reflecting the wealth and variety of Italian 2 culture. Classroom practice of conversation. Prerequisite: ITA 102. Cr 3.

**ITA 202 Intermediate Italian II**

Continuation of ITA 131. Cr 3.

**Spanish****SPN 101 Beginning Spanish I**

Beginner's course in Spanish. Initiation in the four skills of language learning: listening comprehension, speaking, reading, and writing. Students are encouraged to register at the same time for laboratory practice (one more credit.) Cr 3. (With lab, Cr 4.)

**SPN 102 Beginning Spanish II**

Continuation of SPN 101. Cr 3. (With lab, Cr 4)

**SPN 103 Review of Elementary Spanish**

Elementary Spanish for students with some previous study of the language who feel the need of a refresher course before entering SPN 201. If possible, register also for laboratory practice (one more credit). Cr 3. (With lab, Cr 4.)

**SPN 201 Intermediate Spanish I**

For students who have completed SPN 102 or the equivalent. Review of grammar. Classroom practice aiming at fluency in reading and speaking. Students are encouraged to register also for laboratory practice (one more credit). Prerequisite: SPN 102 or equivalent. Cr 3. (With lab, Cr 4)

**SPN 202 Intermediate Spanish II**

Continuation of SPN 201. Cr 3. (With lab, Cr 4.)

**SPN 321 Composition and Conversation in Spanish I**

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

**SPN 322 Composition and Conversation in Spanish II**

Continuation of SPN 321. Cr 3.

**SPN 351 Introduction to Spanish Literature I**

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

**SPN 352 Introduction to Spanish Literature II**

Continuation of SPN 351. Cr 3.

**SPN 470 Independent Study.**



# GEOGRAPHY-ANTHROPOLOGY

Chairman of Geography-Anthropology Department: Franklin D. Hodges, 300a Bailey Hall, Gorham.

Associate Professors French, Hodges, Tizon; Assistant Professor Yesner.

The Department of Geography-Anthropology offers the following programs:

- (1) A 39-hour major in geography-anthropology in the College of Arts and Sciences
- (2) An 18-hour minor in geography-anthropology

All students with majors or specific discipline minors in the social sciences must achieve at least 6 credits with grades of B or better in such major or minor requirements. No grades of D will count toward fulfillment of the major or minor requirements. No required course may be repeated more than once.

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 University's General Education Requirements.

The program leading to a major in geography-anthropology will emphasize the integration of the two disciplines. The major in geography-anthropology will be a 39-hour interdisciplinary major to the extent that students will be expected to take courses from the two disciplines of geography and anthropology. It will be possible for a student to concentrate his/her interest heavily in either geography or anthropology, or to achieve any desired balance between the two disciplines. A student's program of courses beyond the basic requirements listed below must be planned in *close consultation* with the student's advisor and approved by the latter. This approach allows for the flexibility of students' interest while providing close guidance and the control of educational quality by the department.

## GEOGRAPHY-ANTHROPOLOGY MAJOR College of Arts and Sciences Basic Requirements

1. Students electing to concentrate in anthropology must take ANY 101, a choice of ANY 102 or 103, and ANY 210 for a total of nine (9) credit hours
2. Students electing to concentrate in geography must take GEOG 101, 102, 104, and 201 for a total of twelve (12) credit hours
3. Additionally, all geography-anthropology majors are required to take three (3) hours of quantitative methods and three (3) hours of research writing or their equivalents

Beyond these basic requirements the student must set up a program of geography/anthropology courses to fulfill the remaining credits of the thirty-nine (39) hour major with his/her advisor, and all courses in that program must be *previously approved* by the advisor.

## GEOGRAPHY ANTHROPOLOGY MINOR

Required	Credit Hours
GEOG 101 Principles of Geography .....	3
ANY 101 Anthropology: The Cultural View .....	3
At least one course in regional geography or anthropology from: .....	3
GEOG 201 Cultural Geography	
GEOG 325 Geography of Asia	
ANY 220 North American Indians	
ANY 221 South American Indians	

9 hours of electives from the remaining geography/anthropology courses at the 300 level or above to be planned in consultation with the minor advisor .....

TOTAL REQUIREMENTS FOR A MINOR IN GEOGRAPHY-ANTHROPOLOGY .....

## SOCIAL SCIENCES CONCENTRATION For Early Childhood or Elementary Education Students

A minimum of 30-credit hours of HIST, SOC, POL, ANY, ECON, GEOG courses.

## **SOCIAL SCIENCES MINOR**

### **For Early Childhood or Elementary Education Students**

A minimum of 18-credit hours of HIST, SOC, POL, ANY, ECON, GEOG courses.

### **SPECIAL PROGRAMS**

#### **Museum of Man**

The Museum of Man provides a unique experience for students and the community. It is designed to tell the story of human culture through works created by man through the ages. The museum collection is visited each year by students, faculty, and the surrounding community. Field expeditions, materials, and facilities are also available to those interested in museum activities. Further information about the Museum of Man may be obtained from Director Robert French, Department of Geography-Anthropology, or from the office of the Dean of CAS. The Geography-Anthropology Department offers GYAY 100 Museum Aide for one credit hour in conjunction with this project.

#### **Institute for Applied Community and Regional Programs (IACRP)**

Operated under the auspices of the Geography-Anthropology Department, the purpose of the institute is twofold:

- 1) The institute will provide the services of the academic community to the local area, through regional data collection, research, and planning
- 2) The institute will enhance educational and research opportunities for students and faculty members by complementing classroom education with applied experience in community research and development

### **COURSE DESCRIPTIONS**

#### **Geography-Anthropology**

##### **GYAY 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 Man. A minimum of thirty (30) hours of service each semester is required for credit. Cr 1.

##### **GYAY 205 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 up to twice with the permission of the instructor. Cr 6.

##### **GYAY 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 Man. Cr 3.

##### **GYAY 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. Cr 1-6.

##### **GYAY 421 Energy and Society**

This course examines the relationship between energy forms and social types, through a unique synthesis of geographic and anthropological approaches. The range from very simple to modern, complex, industrial society is analyzed in terms of energy forms, supplies, and consumption patterns. Special emphasis is given to the evolution of energy use and social forms in the United States, and to possible future alternatives. Prerequisite: introductory courses in geography or anthropology or permission of instructor. Cr 3.

#### **Anthropology**

##### **ANY 101 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.

#### **ANY 102 Biological Anthropology**

Man's 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.

#### **ANY 103 Introduction to Archaeology**

Introduction to Archaeology describes the methods and theories used by modern archaeologists to uncover information about past human lifeways. 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.

#### **ANY 201 Human Origins**

This course traces the biological and cultural evolution of humanity during the last several million years. Various human fossils are considered in order to shed light on the processes of human evolution, and the development of human culture is explored through the archaeological record from the earliest evidence to the advent of farming and domestication. Cr 3.

#### **ANY 202 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. This course is designed as a sequel to ANY 201. No prerequisites. Cr 3.

#### **ANY 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 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: ANY 101 or permission. Cr 3.

#### **ANY 213 Cultural Ecology**

This course examines interactions between human societies and their natural environments. One part of the framework of the course is historical, seeking the roots of our current energy-related and ecological crisis through the study of simple human societies. A second part of the course involves mastering the methodology that anthropologists use in studying the interrelationships between human groups and their environments. Cr 3.

#### **ANY 220 North American Indians**

This course combines an ethnographic and archaeological perspective on the culture history and traditional cultures of native North Americans. Emphasis is placed on the relationship of aboriginal native cultures to their environments, and the evolution of complex societies in certain regions of North America. Also included is discussion of the fragmentation of Indian societies that followed the European invasion of North America. Cr 3.

#### **ANY 221 South American Indians**

This course presents a survey of the indigenous cultures of South America, from the earliest signs of human population on that continent, through the rise of Incan civilization and the European conquest, to the condition of the contemporary indigenous peoples remaining, primarily, in the Andes highlands and the Amazon tropical forest. Cr 3.

#### **ANY 232 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 human 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. Cr 3.

#### **ANY 301 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: ANY 101. Cr 3.

#### **ANY 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: ANY 101 or permission of instructor. Cr 3.

#### **ANY 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 meth-



odological 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: ANY 105. Cr 3.

#### **ANY 306 Archaeological Laboratory Analysis**

Students will be introduced to the analysis of materials collected on an archaeological site. Their work will be centered around the results of previous summers' archaeological excavations. Research projects will be associated with the same materials. Lecture material will center around 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: ANY 103. Cr 4.

#### **ANY 320 Peoples of the North**

This course is designed as a comprehensive summary of the prehistory, traditional culture, and contemporary lifeways 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. Prerequisites: ANY 101 and 105 or permission of the instructor. Cr 3.

#### **ANY 333 Structural Linguistics and Culture (cross-listed with ENG 333)**

This course analyzes the language and culture (art, religion, poetry) of pre-literate societies, particularly the American Indian. Cr 3.

#### **ANY 400 Independent Study in Anthropology**

The department faculty offers independent study in a topic in anthropology 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.

## **Geography**

#### **GEOG 101 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 man-environment relationships as seen from the geographer's point of view. The course is a 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.

#### **GEOG 102 Physical Geography**

This course examines the interrelationships between people and the physical environment. Climate, soil, vegetation, landforms, water and mineral resources are the topics which are covered in this introductory course. This course is required for all majors concentrating in geography. Cr 3.

#### **GEOG 104 Cartography I**

Mapping the landscape: principles of cartographic design. 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.

#### **GEOG 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.

#### **GEOG 201 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 with our own. Prerequisite: GEOG 101. This course is required for all majors concentrating in geography. Cr 3.

#### **GEOG 202 Geomorphology (also GEOL 202)**

Description and interpretation of landform development in terms of geologic structure, process, and stage. One, possibly two, weekend field trips. Prerequisite: GEOL 113 or 114 or permission of instructor. Two hours lecture, three hours lab. Fall semester. Cr 3.

#### **GEOG 204 Advanced Cartography (Cartography II)**

This course is intended to build upon the basic cartographic skills introduced in GEOG 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. A laboratory fee is required. Prerequisite: GEOG 104 or permission of instructor. Cr 3.

#### **GEOG 205 Air Photo Interpretation**

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.

#### **GEOG 206 Field Camp in Geography (also Farmington GUY 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.

#### **GEOG 209 Introduction to Land Use Planning**

This course offers an overview of man/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.

### **GEOG 303 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 to interpret and understand the present economic landscapes, and to critically evaluate the factors and trends which anticipate the future. Prerequisite: an introductory course in geography or economics, or permission of instructor. Cr 3.

### **GEOG 304 Political Geography**

Political Geography is an examination of political conditions in selected areas of the world with emphasis upon theory, process, and results of political decisions. Physical, economic, and cultural factors are considered as explanations for political problem areas. Prerequisite: introductory courses in geography, anthropology, or political science, or permission of instructor. Cr 3.



### **GEOG 306 Coastal Zone Resources**

Examination of the authority of different levels and agencies of government to make decisions affecting resource management of coastal regions. Uses and related conflicts of the coastal zone will be investigated. Special emphasis on public access, coastal recreation, wetlands and sanctuaries, and port development. Prerequisite: GEOG 101, 102 or 201. Cr 3.

### **GEOG 311 Spatial Organization**

Involves the use of computer algorithms and other simulation devices to help solve various location problems such as where to build a fire station or how to assess health care delivery. Concepts of spatial efficiency, geographic predictive approaches and field plotter techniques are involved. Programs have obvious real world applications and students are encouraged to relate them to areas of their own interest. Cr 3.

### **GEOG 325 Geography of Asia**

The course examines the regions of South Asia and East Asia. Monsoon Asia is regional in approach and all aspects of the environment are presented. Physical, cultural, economic, and political factors are examined in an integrative analysis to allow an understanding of some of the reasons for conditions in this part of the world. Prerequisite: introductory course in geography or anthropology or permission of instructor. Cr 3.

### **GEOG 400 Independent Study in Geography**

The department faculty offers independent study in a topic in geography for upper-level students (junior and senior status). Individuals wishing to take advantage of this option should secure a faculty sponsor and department approval. Variable credits will be offered. Cr 1-6.

### **GEOG 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: background courses in anthropology or geography. Cr 3.

### **GEOG 402 Urban Geography**

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: GEOG 101. Cr 3.

# GEOSCIENCES

Chairman of Geosciences Department: Irwin D. Novak, 112a Bailey Hall, Science Wing, Gorham.

Associate Professors Ayers, Hare, Novak, Pendleton; Assistant Professor Pollock

Courses offered by the Department of Geosciences are grouped under the following headings:

**ASTRONOMY**

**EARTH SCIENCE** (including Atmospheric Science, and Oceanography)

**GEOLOGY**

**PHYSICAL SCIENCE**

Degree programs in earth science and geology are offered in the College of Arts and Sciences. A major in earth science or geology must achieve a 2.0 grade point average and no D's in the major courses.

Students in the Early Childhood or Elementary programs in the College of Education may obtain an academic major requiring 30 credit-hours of approved biological and physical science courses in the Science Area, but the Science Area minor of 18 credit-hours is more commonly selected by such students. The latter program is outlined later in this section.

## THE EARTH SCIENCE PROGRAMS

Two four-year programs are offered in the department. One program is designed so that upon completion a student may enter graduate school, or seek work in conservation, state and federal parks and planning agencies and in industry. The second is a geology major and is available for those students intending to go to graduate school or to pursue a professional career in geology.

Geology or earth science 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, computer science, economics, geography, and statistics if their interests are in the wider aspects of earth sciences.

The earth science major in Arts and Sciences requires the completion of a minimum of 72 credit hours in addition to the University's General Education Requirements.

The geology major in Arts and Sciences requires the completion of a minimum of 57 credit hours in addition to the University's General Education Requirements.

## REQUIREMENTS FOR AN EARTH SCIENCE MAJOR IN ARTS AND SCIENCES

GEOL	111, 112	Physical Geology .....	4
GEOL	113, 114	Historical Geology .....	4
CHEM	113, 114	Qualitative Principles of Chemistry I	
CHEM	115, 116	Qualitative Principles of Chemistry II .....	10
or			
CHEM	109, 110	General Chemistry I	
and			
CHEM	111, 113	General Chemistry II .....	10
PHYS	111, 112	Elements of Physics .....	9-10
or			
PHYS	121, 122	General Physics .....	10
ASTR	100	Astronomy .....	3
MET	100	Meteorology .....	3
OCN	100	Oceanography .....	3

A minimum of 6 credits of mathematics selected from: .....6  
MS 120, 140, 152 or courses with second digit higher than 5.

42-43

Of the following courses, Arts and Sciences majors are required to take 29-30 credits, including at least 15 credits of 200 level and 9 credits of 300 level and PSCI 498, Independent Study.

ASTR	210	Observational Astronomy .....	3
CHEM	141	Environmental Chemistry .....	3
ESCI	110	Environmental Science .....	3
ESCI	160	Soil Science .....	4
ESCI	202	Conservation .....	3
ESCI	260	Soil Formation and Classifications .....	4
GEOL	116	Environmental Geology .....	4
GEOL	202	Geomorphology (also GEOG 202) .....	4
GEOL	203	Mineralogy .....	4
GEOL	205	Geological Oceanography (also OCN 205) .....	3
GEOL	206	Paleontology .....	3
GEOL	301	Structural Geology .....	4
GEOL	302	Sedimentology and Stratigraphy .....	4
GEOL	310	Glacial and Pleistocene .....	3
PSCI	310	History of Science .....	3
PSCI	498	Independent Study .....	1-3

## REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE IN GEOLOGY

The geology major requires the completion of a minimum of 69 credits in addition to the University's General Education Requirements.

### Chemistry and Physics: Required Courses

CHEM	113, 114	Qualitative Principles of Chemistry I .....	10
and			
CHEM	115, 116	Qualitative Principles of Chemistry II .....	10
PHYS	121-122	General Physics .....	10

### Mathematics: Required Courses

MS	120	Introduction to Statistics .....	3
MS	152	Calculus A .....	4

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 MS 140, Precalculus Mathematics.

### Geology: Required Courses

GEOL	111, 112	Physical Geology .....	4
GEOL	113, 114	Historical Geology .....	4
GEOL	202	Geomorphology .....	3
GEOL	203	Mineralogy .....	4
GEOL	204	Optical Mineralogy .....	4
GEOL	206	Paleontology .....	3
GEOL	301	Structural Geology .....	3
GEOL	302	Sedimentation and Stratigraphy .....	4
GEOL	303	Igneous and Metamorphic Petrology .....	4
GEOL	491, 492	Senior Thesis in Geology .....	3-6
or			
GEOL	498	Independent Study in Geology .....	1-3
GEOL	495, 496	Geology Seminar I, II .....	2

Electives Courses: In addition to those courses listed above students would be required to take six credit hours from the remaining electives.

### Electives:

GEOL	205	Geological Oceanography (also OCN 205) .....	3
GEOL	304	Sedimentary Petrology .....	2
GEOL	310	Glacial and Pleistocene Geology .....	3
GEOL	350	Geological Field Methods .....	3
GEOL	401	Advanced Petrology .....	4
GEOL	405	Tectonics .....	3

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

### Course Requirements:

GEOL	111/112	Physical Geology.....	4
GEOL	113/114	Historical Geology.....	4
GEOL	203	Mineralogy.....	4
GEOL	301	Structural Geology.....	4
GEOL 202/GEOG 202		Geomorphology.....	4
	or		
GEOL	302	Sedimentation and Stratigraphy.....	4
TOTAL CREDIT HOURS			20

### REQUIREMENTS FOR A SCIENCE CONCENTRATION AND MINOR FOR STUDENTS IN THE EARLY CHILDHOOD OR ELEMENTARY EDUCATION PROGRAMS

A science area major or minor consists of 30 hours or 18 hours respectively of courses elected from the following areas: astronomy, biology, chemistry, earth science, geology, atmospheric science, oceanography, physics, physical science.

It is suggested that the students plan with their advisors a sequence of two introductory courses such as:

- (1) ESCI 120 Concepts of Earth Science
- (2) BIO 101 Biological Principles

The additional courses should represent a variety of science areas and may be chosen from electives such as:

ASTR	100	Astronomy
ASTR	105	Astronomy in the Planetarium
ASTR	210	Observational Astronomy
BIO	103	Biological Diversity
BIO	104	Survey of Animals and Plants
CHEM	141	Environmental Chemistry
CHEM	109, 110	General Chemistry I
ESCI	110	Environmental Science
ESCI	140	Energy, Man and Environment
ESCI	202	Conservation
GEOL	111, 112	Physical Geology
GEOL	113, 114	Historical Geology
PSCI	310	History of Science
ATMS	130	Meteorology
OCN	100	Intro to Oceanography
PHYS	100	Descriptive Physics

## COURSE DESCRIPTIONS

### Astronomy

#### ASTR 100 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 planetarium sessions and optional evening observations with telescopes are included. No prerequisites. Offered fall and spring semesters. Cr 3.

#### ASTR 101 Cosmos

Cosmos is a television course, narrated by Carl Sagan, which will appear in thirteen (13) installments on Public Educational Television. This is an interdisciplinary course which explores the relationships between the earth and its inhabitants and the vast universe around them. Concepts in science

will be examined through viewing of the television programs and reading of the accompanying book; *COSMOS*, and the supplementary materials of the Reader/Study Guide. Each participant will have four class meetings at one of the several learning centers established for the course. Cr 3.

#### ASTR 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 prerequisites. Offered fall and spring semesters. Cr 3.

#### ASTR 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: ASTR 100 or equivalent. Fall semesters only. Cr 3.

## Earth Science

### ESCI 110 Environmental Science

A descriptive study of the basic physical relationships between man and the aquatic and atmospheric environment. This will include man's influence on surface and ground water quality to encompass agricultural, domestic, industrial and municipal realms. The atmosphere will be discussed in terms of geologic origin, natural evolutionary changes, global circulation patterns, and the effect of modern industrial society upon its composition and quality. Background in high school chemistry, mathematics and physics is desired. Three hours lecture. Cr 3.

### ESCI 120 Concepts of Earth Science

A one semester course introducing students to basic processes as they apply to geology, meteorology and oceanography. These processes are further developed during weekly lab sessions. This course is not open to any student who has had, or is presently taking a college course in any of the above mentioned three earth science areas. Prerequisite: two years of high school science or permission of instructor. Two one-hour lectures and one two-hour lab weekly. Cr 3.

### ESCI 140 Energy, Man and Environment

This course will present a study of man's energy needs, and the alternative energy sources available. In addition, the impact on the environment of the utilization of the various energy sources will be considered. Cr 3.

### ESCI 160 Soil Science

An introductory course delving into the science of soil development, soil classification and soil use. The course is intended to meet the needs of beginning as well as experienced students in the earth sciences and related fields. Topics considered are soil make up and morphology, soil chemical and physical properties, soil genesis, soil organic matter, soil mineralogy, soil ecology land use and Maine soils. Three hour lecture, two hour lab. Prerequisites: Physical Geology or permission of the instructor. Cr 4.

### ESCI 202 Conservation

A study of man's use of the environment. Topics include the resources of mineral, soil, forests, water, air, wildlife, and man himself. Consideration is given to the issues and problems developing from the interaction of management of these resources. Weekly field trips when weather permits. Two hours lecture, two hours lab. Cr 3.

### ESCI 260 Soil Formation and Classifications

The course delves into the macromorphology and micromorphology of the soil body, as well as the overall soil formation processes. Soil Formation and Classifications studies the reasoning behind soil development and soil diversification. Major problem features such as: mottling, pans, organic fraction, clay minerals, etc., are studied in detail. The second portion of the course studies the 7th approximation and the overall world-wide systems for classifying pedons (soil bodies) as a useable,

necessary art. Three hour lecture, two hour lab. Prerequisite: ESCI 160, one semester of chemistry or permission of the instructor. Cr 4.

### ESCE 300-301, 400-401 Cooperative Education in Earth Sciences

The student has the opportunity to relate academic knowledge to practical experience in a job situation. The University makes arrangements with certain institutions, businesses, and industries to employ 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.

### MET 100 Meteorology

A basic introduction to meteorological phenomena. The atmosphere; its characteristics, composition, and structure; cloud types; circulation of air currents and winds; air masses. Analysis of weather reports, weather forecasting, and weather maps. Three hours lecture. Cr 3.

### OCN 100 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. Each semester. Cr 3.

### OCN 101 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: OCN 100 which may be taken concurrently. One two hour laboratory session each week. Cr 1.

### OCN 205 Geological Oceanography (also GEOL 205)

The origin and structure of the continental shelves and ocean basins. Coastal and oceanic processes; geomorphic development of the marine environment. Special emphasis on the evolution of the New England coast through examination of salt marshes, estuaries, and beaches. Prerequisite: GEOL 111, 112 or OCN 100 or permission of the instructor. Three hours lecture. Fall semester. Cr 3.

## Geology

### GEOL 111 Physical Geology

A study of the ever-changing earth by wind, water, volcanism, crustal movement and glaciation. Three hours of lecture. Each fall and spring. GEOL 111 may be taken without GEOL 112. Cr 3.

### GEOL 112 Physical Geology Lab

Identification of common rocks and minerals, further development of the processes covered in lecture; field trips when weather permits. Each fall and spring. To be taken concurrently with GEOL 111. Lab two hours. Cr 1.

### **GEOL 113 Historical Geology**

Study of the earth's history in terms of physical, chemical and biological change from its origin to the present time, stressing the methods of determining chronology and conditions through fossils and structural characteristics. Prerequisites: GEOL 111, 112. Two hours of lecture. Cr 4.

### **GEOL 114 Historical Geology Lab**

A study of rocks, minerals and fossils to determine the geological conditions at some ancient time. Introduction to paleogeographic and topographic maps. Field trips. To be taken concurrently with GEOL 113. Three hours. Each spring. Cr 0.

### **GEOL 116 Environmental Geology**

Application of the science of geology to environmental problems resulting from man's intense use of the earth and its natural resources. Prerequisites: GEOL 111, 112 or permission of the instructor. Two 75-minute lecture sessions. One two-hour lab. Cr 4.

### **GEOL 202 Geomorphology (Also GEOG 202)**

Description and interpretation of landform development in terms of geologic structure, process, and stage. One, possibly two weekend field trips. Prerequisite: GEOL 113, 114. Two hours lecture. Two hours lab. Fall semester. Cr 4.

### **GEOL 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. Two hours lecture. One hour recitation. Four hours lab. Prerequisite: GEOL 111, 112. CHEM 113, 114 (may be taken concurrently). Fall semester. Cr 4.

### **GEOL 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: GEOL 203. Lecture two hours. Lab four hours. Spring semester. Cr 4.

### **GEOL 205 Geological Oceanography (Also OCN 205)**

The origin and structure of the continental shelves and ocean basins. Coastal and oceanic processes; geomorphic development of the marine environment. Prerequisite: GEOL 111, 112 or OCN 100 or permission of the instructor. Three hours lecture. Fall semester. Cr 3.

### **GEOL 206 Paleontology**

A description and classification of the important phyla of the fossil invertebrates and a survey of their use in biostratigraphic, evolutionary and paleoecologic studies. One weekend field trip. Prerequisites: GEOL 113, 114. Two one-hour lectures and one two-hour lab per week. Each fall. Cr 3.

### **GEOL 301 Structural Geology**

An introduction to the mechanics of rock deformation, faulting, jointing, top-bottom criteria and metamorphic foliations. The lab includes problems in descriptive geometry, stereonet, the Brunton compass, geologic maps and cross sections, and

analysis of polyphase folding. Prerequisites: GEOL 111, 112 and GEOL 113, 114. Field trips. Two hours lecture, one hour recitation, two hours lab. Fall semester. Cr 4.

### **GEOL 302 Sedimentation and Stratigraphy**

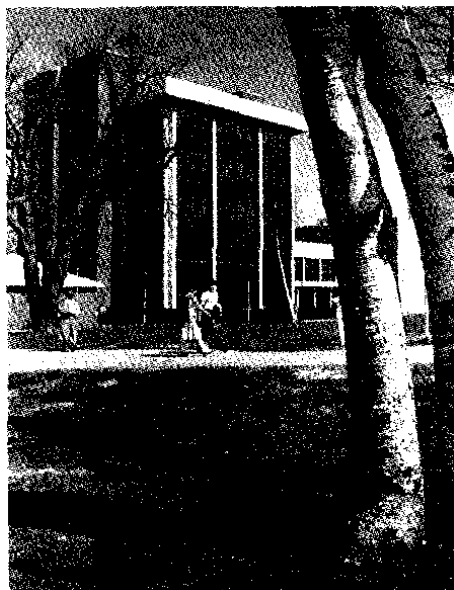
Principles of stratigraphy and sedimentation including correlation, facies, stratigraphic nomenclature, and sedimentary processes and environments. Students will analyze common problems in applied fields associated with these areas. Prerequisite: GEOL 203. GEOL 202 recommended. Some weekend field trips. Two hours lecture, three hours lab. Spring semester. Cr 4.

### **GEOL 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: GEOL 204. Two hours lecture; four hours laboratory. Fall semester. Cr 4.

### **GEOL 304 Sedimentary Petrology**

The study of the origin of sedimentary rocks to include clastic, carbonate and chemical sediments. Topics discussed cover chemical and physical changes from the time of deposition to the beginning of very low grade metamorphism. Laboratory work stresses petrography and classification of sedimentary rocks and closely follows classroom topics. One or more day or weekend field trips. Prerequisite: GEOL 204. (May be taken concurrently). One hour lecture; two hours laboratory. Offered Spring semester. Cr 2.



### **GEOL 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: GEOL 202. Two hours lecture, two hours lab. Spring semester. Cr 3.

### **GEOL 350 Geological Field Methods**

A course in geological field methods intended to introduce to the student the tools and practical techniques used in collecting, compiling and analyzing geological data. Students will have assignments in the igneous/metamorphic and surficial terrain of Southern Coastal Maine and sedimentary and volcanic terrain in Eastern Coastal Maine. Summer. Five weeks. Prerequisites: GEOL 111, 112 and GEOL 113, 114. GEOL 203, GEOL 301. Recommended: GEOL 302, GEOL 303, GEOL 202. Cr 6.

### **GEOL 401 Advanced Petrology**

The course expands upon material covered in GEOL 303 to include a rigorous discussion of thermodynamics and applications to petrology. Topics covered include chemical and experimental petrology, generation and evolution of magmas, physical conditions of metamorphism, geothermometry and geobarometry. Laboratory work stresses petrology of selected igneous and metamorphic rock suites. One or more day or weekend field trips. Prerequisites: MS 152, GEOL 303. Offered spring semester even years or on demand. Two hours lecture, four hours lab. Cr 4.

### **GEOL 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. Prerequisite: GEOL 301 or GEOL 303 or permission of instructor. Three hours lecture. Cr 3.

### **GEOL 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.

### **GEOL 495 Geology Seminar I**

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. Each fall. Cr 1.

### **GEOL 496 Geology Seminar II**

A continuation of GEOL 495. Prerequisite: senior standing. Each spring. Cr 1.

### **GEOL 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**

### **PSCI 110 Elements of Physical Science**

A one-semester course designed to develop greater understanding of scientific principles and methods as they apply to areas of the physical sciences. An understanding of basic mathematics is assumed. Two one-hour lectures, one two-hour lab. Cr 3.

### **PSCI 310 History of Science**

A comprehensive survey of the historical development of science from earliest records to the present. Attention is given to the nature of science, methods of scientific discovery, the interrelations of science and technology, and the implications of science for society. Emphasis is on the physical sciences. Prerequisite: two years (minimum of 12 credit hours) of college science. Cr 3.

### **PSCI 400 Science and Society**

Readings and discussions concerning the relationships between science and society. The tactics and strategy of science and the philosophical and social implications of present scientific theories are considered with the aim of promoting understanding of the role of science in modern life. The interactions between scientists and society and the relationship between research and technology are also examined. Not offered every year. Senior students and others by instructor's permission. Cr 3.

### **PSCI 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.



# HISTORY

Chairman of History Department: Joel W. Eastman, 325 Bonney Hall, Portland; Departmental offices: 314 Bonney Hall, Portland; 300 Bailey Hall, Gorham.

Professors Cole, Emerson, Hunt, Schleh, Young, York; Associate Professors Albee, Bibber, Connick, Dietrich, Eastman, Padula, Ventresco, Whitmore.

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 preserving, analyzing and drawing significance from documents and artifacts. The USM history curriculum offers students the opportunity to learn the historian's craft through lectures, discussions, research, and writing.

History is an excellent major for students planning on graduate studies in business, law, or library science. Besides teaching, 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.

In addition to the Bachelor of Arts in History, the department offers a minor in history and courses which are used in the history concentration for the College of Education's Early Childhood or Elementary programs; in the Bachelor of Arts degrees in Social Sciences; in the Master of Science in Education with history concentration; and in a Master of Arts in History in cooperation with the University of Maine at Orono.

Students in all departments are well advised to broaden their understanding of mankind through history courses. The following program defines the requirements for majors. Whether or not the student exceeds the minimum number of history electives, they should be chosen to provide a coherent program. Courses in other departments should be an integral part of this program and should be selected in consultation with an advisor. It is strongly recommended that history majors, especially those expecting to do graduate study, acquire proficiency in a foreign language.

The Department of History 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 these programs.

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.

The History Department offers an Honors Program for outstanding history majors. The program gives students an opportunity to undertake an independent research project in their junior or senior year under the guidance of a member of the Department. Information is available at either department office.

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 University's General Education Requirements.

## REQUIREMENTS FOR HISTORY MAJORS

	<b>Credit Hours</b>
HIST 101 and 102 Western Civilization I and II.....	6
HIST 131 and 132 U.S. History to 1877 and U.S. History Since 1877 .....	6
Any two courses from the following Third World Surveys: .....	6
HIST 161 and 162 Introduction to African History to Partition and Introduction to African History since Partition	
HIST 171 and 172 Traditional East Asia and Modern East Asia	
HIST 181 and 182 Latin America I and II	
HIST 200 Reference, Research and Report Writing.....	3
Advanced History Courses .....	<u>18</u>
Minimum Total to Meet Major Requirements .....	39

Unusually well-prepared entering students may, upon passing an examination, gain exemption from any of the required courses. Up to six hours of credit may be granted for superior achievement on such examinations. Otherwise, students will take advanced elective courses to complete the minimum number of credit hours for the major.

## MINOR IN HISTORY

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 100 level introductory course appropriate to the area, period or topic, and be approved by the chairman of the department.

### HISTORY CONCENTRATIONS IN COLLEGE OF EDUCATION PROGRAMS

Students in Early Childhood or Elementary Education in the College of Education may complete 30 hours of history in an approved program for a concentration or 18 approved hours for an academic minor. HIST 101-102 and HIST 131-132 are required courses in either the concentration or minor program.

### COURSE DESCRIPTIONS

#### **HIST 101 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, Michaelangelo, and Elizabeth I. The course also introduces students to historical method. Cr 3.

#### **HIST 102 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.

#### **\*HIST 131 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.

#### **\*HIST 132 United States History Since 1877**

The course is a continuation of HIST 131. A survey of American political, social, and economic development since about 1877. Cr 3.

#### **\*HIST 133 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 paper-bound 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.

#### **\*HIST 134 American History II**

A continuation of HIST 133 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.

\*HIST 131-132 and HIST 133-134 are both introductory courses, although their organization and

emphasis differ. History majors may take HIST 133-134 only for general elective credit.

#### **HIST 161 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.

#### **HIST 162 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.

#### **HIST 163 Africa Through Its Literature**

An examination of how African history has been portrayed through novels. Both historical recreation novels and books reflective of the societies which produced them are used, with particular emphasis on English-speaking Africa. (Offered every other year.) Cr 3.

#### **HIST 171 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.

#### **HIST 172 Modern East Asia**

China and Japan since about 1700, emphasizing contrasting moves toward modernization in two traditional societies. Cr 3.

#### **HIST 181 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.

#### **HIST 182 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.

#### **HIST 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.

### **HIST 231 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.

### **HIST 232 Ancient History II**

A continuation of HIST 231 concentrating upon an examination of ancient Rome. (Offered occasionally.) Cr 3.

### **HIST 235 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: HIST 101 or permission. Cr 3.

### **HIST 241 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 which engendered the religious wars and the Counter Reformation. Prerequisite: HIST 101 or permission. Cr 3.

### **HIST 242 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: HIST 102 or permission. Cr 3.

### **HIST 243 Society and Politics of 19th Century Europe**

A survey of Europe's major powers and their international relations. Major topics also include liberalism, nationalism, socialism, and imperialism. Intellectual and cultural developments are stressed. Prerequisite: HIST 102 or permission. Cr 3.

### **HIST 244 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: HIST 102 or permission. Cr 3.

### **HIST 256 World Wars I and II: European War and Diplomacy**

A study of the origins, 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: HIST 102, 132 or permission. Cr 3.

### **HIST 261 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: HIST 101 or permission. Cr 3.

### **HIST 263 Britain in the 20th Century**

A study including the Victorian and Edwardian Age, Imperialism, the Monarchy, the Depression, appeasement, the English people in two World Wars, the question of Ireland, and the leadership of Lloyd George and Churchill. Prerequisite: HIST 102 or permission. Cr 3.

### **HIST 265 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: HIST 101 and HIST 102 or permission. Cr 3.

### **HIST 266 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: HIST 102 or permission. Cr 3.

### **HIST 272 Germany To 1945**

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: HIST 102 or permission. Cr 3.

### **HIST 273 Germany Since Hitler**

After intensive analysis of the impact of the Nazi era and World War II on Germans, the course analyzes the two German states in terms of: (a) their emergence, 1945-1949, and effects of the Cold War and occupation on each; (b) their political, economic, and social development since 1949; (c) the role of the Federal Republic of Germany in relation to the West and the role of the German Democratic Republic in the Communist bloc; (d) their relations with each other; (e) intellectual and cultural developments in both. Prerequisites: six hours of European history or international relations. HIST 272 desirable. Cr 3.

### **HIST 275 Russia to 1861**

A survey of political, social, cultural and economic history of the Russian people to the emancipation of the serfs. The course surveys geographic factors, in-

fluence of Byzantine civilization, the impact of invasions, and the development of Russia's unique problems. Prerequisite: one history survey or permission.

Cr 3.

### **HIST 276 Russia Since 1861**

A survey of political, social, cultural, and economic history from the emancipation of the serfs to today. The course deals with Tsarist autocracy and its weaknesses, pressures for reform, the intelligentsia, revolutionary parties, the Bolshevik Revolution, and Communist Russia since 1917. Prerequisite: one history survey or permission.

Cr 3.

### **HIST 290 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.

### **HIST 301 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: HIST 131 or permission. (Offered every other year.)

Cr 3.

### **HIST 302 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: HIST 131 or permission. (Offered every other year.)

Cr 3.

### **HIST 305 Hamilton and Jefferson**

A study of Hamilton and Jefferson including biographical information and the Jefferson-Hamilton political dichotomy and its subsequent influence. Following this, the course will present a general analysis of social, intellectual, political, economic, and diplomatic problems facing the "New Nation" between 1789-1815. Prerequisite: HIST 131 or permission. (Offered every other year.)

Cr 3.

### **HIST 306 The Age of Jackson, 1815-1850**

A consideration of American political, cultural, social, and economic development in the first half of the 19th century. Specific topics will include the controversies surrounding Jacksonian democracy, the Bank of the United States, internal improvements, the tariff, "Manifest Destiny," and the sectional-slavery issue. Prerequisite: HIST 131 or permission. (Offered every other year.)

Cr 3.

### **HIST 307 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: HIST 131 or permission.

Cr 3.

### **HIST 308 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: HIST 132 or permission.

Cr 3.

### **HIST 309 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: HIST 132 or permission.

Cr 3.



### **HIST 310 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: HIST 132 or permission.

Cr 3.

### **HIST 321 History of Maine**

A survey of Maine's social, economic and political life from exploration and early settlement to the present.

Cr 3.

### **HIST 325 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: HIST 131 and 132 or permission. (Offered every other year.)

Cr 3.

### **HIST 331 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, aboli-

tionism, segregation, programs of race advancement, and the modern search for identity. Prerequisites: HIST 131 and 132 or permission. Cr 3.

### **HIST 333 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.

### **HIST 335 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: HIST 131 or permission. (Offered every other year.) Cr 3.

### **HIST 337 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: HIST 131 or permission. (Offered occasionally.) Cr 3.

### **HIST 338 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: HIST 132 or permission. (Offered occasionally.) Cr 3.

### **HIST 339 American Labor in the Twentieth Century**

A chronological examination of the efforts of workers to adjust to our corporate industrial society. Topics will include the emergence of the AFL, labor radicalism, the role of labor leadership, racketeering, labor and the New Deal, and labor theory. The focus will be on unions, but attention will be given to nonunion segments of the labor force as well. Prerequisite: HIST 132 or permission. (Offered every other year.) Cr 3.

### **HIST 341 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: HIST 131 or permission. (Offered every other year.) Cr 3.

### **HIST 342 American Social and Intellectual History II**

A continuation of HIST 341 from 1865 to the pres-

ent. Prerequisite: HIST 132 or permission. (Offered every other year.) Cr 3.

### **HIST 343 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: HIST 131 or permission. Cr 3.

### **HIST 344 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: HIST 132 or permission. Cr 3.

### **HIST 345 American Character**

A course focusing on a particular problem of historical analysis: the interpretation of the national character as revealed in sources ranging from the earliest accounts of foreign travelers to the most recent works of social psychologists. Authors to be considered in discussions, reports, and papers include Tocqueville, Bryce, Adams, Turner, Siegfried, Mead, Potter, Riesman, and others. Prerequisite: HIST 131 or permission. (offered every other year.) Cr 3.

### **HIST 347 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. (Offered occasionally.) Cr 3.

### **HIST 348 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: HIST 131 and 132 or permission. (Offered every other year.) Cr 3.

### **HIST 350 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 US foreign relations. Prerequisite: six hours of history or social science or permission. Cr 3.

### **HIST 362 Contemporary Africa**

An interdisciplinary seminar on contemporary Africa examining literature and the arts, social change, development and adaption in African politics, economic development, race relations, and international politics. (Offered every other year.) Cr 3.

### **HIST 371 The United States and Asia**

A history of the United States' interests in the Far East from 1789 to the present, considering economic and social contacts as well as diplomatic. Prerequisites: HIST 131 and 132. HIST 172 strongly recommended. Cr 3.

### **HIST 373 History of Late Traditional China**

Before the nineteenth century no Chinese doubted—and few outsiders who saw it disagreed—that the "Middle Kingdom" was the greatest of the world's civilizations. No society was larger, had stronger ties to its past, or had contributed more to the develop-

ment of human culture. This course will explore the institutions and values of China in the period from 800 to 1800, and its relationships with other societies. Prerequisite: HIST 171 recommended. Cr 3.

#### **HIST 374 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: HIST 172 recommended. Cr 3.

#### **HIST 376 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: HIST 172 recommended. Cr 3.

#### **HIST 377 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: HIST 171 recommended. Cr 3.

#### **HIST 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.

#### **HIST 383 The Society and Culture of Latin America**

This seminar seeks to examine, through the use of popular novels and films, the principal characteristics of Latin American culture. Such elements as the role of dictators and revolutionaries, of machismo and imperialism, and of great haciendas and folkloric religions will be considered. Cr 3.

#### **HIST 386 Modern War and Its Images**

An examination of twentieth century warfare stressing the ways in which it has been portrayed to mass audiences. Particular use is made of film, both documentary and feature, and continuing attention is given to the uses of film in the study and teaching of history. Fiction, reporting, and survey histories will also be used, as well as occasional participation by guest discussants. (Offered occasionally.) Cr 3.

#### **HIST 392 Problems in Contemporary History**

An analysis of a selected controversial and contemporary 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.

#### **HIST 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.

#### **HIST 410 The European Revolutionary Tradition Since 1789**

A seminar analyzing modern European revolutions, revolutionary leadership, and the dynamics of revolution, including the role of the revolutionary crowd.

Revolutions analyzed range from the French Revolution to the Bolshevik Revolution and include 20th century fascist revolutions. Open to seniors and others by permission. Prerequisite: at least six hours of European history or equivalent in unusual cases. Cr 3.

#### **HIST 412 Totalitarianism: Nazism and Soviet Communism**

A seminar which seeks to analyze and understand the 20th century phenomenon of totalitarianism by in-depth historical case studies of Nazism and Soviet Communism. Such topics as the leader (Hitler/Stalin), the party (Nazi/Communist), the enforcement operation (SS/NKVD), concentration camps and "Gulag Archipelago," propaganda techniques and results, internal administrative organization, and war machines (Wehrmacht/Red Army) will be included. Open to juniors, seniors, and graduate students with background in 20th century European history and political science. Cr 3.

#### **HIST 415 Recent Literature in European History**

A survey of the most important recent literature in the field of European history. Designed to inform the public school teacher and advanced undergraduate of the newest publications and historical controversies. Annotated bibliographies will be prepared. Emphasis will be placed on reading and discussing books and articles which have applicability to secondary education programs. Prerequisite: six hours of European history or permission. (Offered occasionally.) Cr 3.

#### **HIST 445 Recent Literature in United States History**

A survey of the most important recent literature in the field of U.S. history. Designed to inform the public school teacher and advanced undergraduate of the newest publications and historical controversies. Annotated bibliographies will be prepared. Emphasis will be placed on reading and discussing books and articles which have applicability to secondary education programs. Prerequisites: twelve hours of U.S. history or permission. (Offered occasionally.) Cr 3.

#### **HIST 493 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.

#### **HIST 495 Historiography**

A survey of the principal schools of historical writing and of their products, with a detailed analysis of the philosophical principles, specific purposes, and research and writing techniques of selected major historians. Prerequisite: senior history majors only. (Offered occasionally.) Cr 3.

#### **HIST 498 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.

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 chairman.

# MATHEMATICS AND COMPUTER SCIENCE

Chairman of Mathematics and Computer Science: Maurice J. Chabot, 230 Science Building, Portland.

Professors Estes, Fish, Guay, Kratzer, Mainville, Rogers; Associate Professors Brown, Chabot, Foster, Irish, MacDonald, Welty; Assistant Professors Heath, Smith, Soychak.

The Department of Mathematics and Computer Science offers four-year programs leading to a B.A. degree in Mathematics or a B.A. degree in Computer Science. The department also provides the mathematics major courses for a B.S. in Education (see College of 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, as well as the University's General Education Requirements.

## REQUIREMENTS FOR THE MATHEMATICS MAJOR

As a mathematics major, a student may select one of the three options described below. However, as a prerequisite to other courses, all majors are required to complete successfully the calculus sequence (MS 152, 153, 252) a foundations course (MS 290), and a computer science course (CS 160). 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.

### Option I

Mathematics majors intending to pursue graduate work should choose this option. Those intending to teach at the secondary level should choose this option or the area major described below. Prospective graduate students are urged to take Real Analysis I and II, Abstract Algebra, Topology, and one year of French, German, or Russian; those interested in teaching should take Abstract Algebra, College Geometry, Probability and Statistics I, and should satisfy the appropriate education requirements. 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 a grade-point average of at least 2.0 in these courses and have successfully completed MSED 345.

#### Requirements:

A) Successful completion of one of the courses listed in each of the following four areas:

- |                         |        |                                     |
|-------------------------|--------|-------------------------------------|
| 1) Algebra:             | MS 382 | Abstract Algebra                    |
|                         | MS 380 | Linear Algebra                      |
| 2) Analysis:            | MS 352 | Real Analysis I                     |
|                         | MS 354 | Topics in Advanced Calculus         |
|                         | MS 355 | Complex Analysis                    |
|                         | MS 490 | Topology                            |
| 3) Applied Mathematics: | MS 350 | Differential Equations              |
|                         | MS 362 | Probability and Statistics I        |
|                         | MS 364 | Numerical Analysis I                |
|                         | MS 366 | Linear Programming                  |
|                         | MS 460 | Mathematical Modeling               |
|                         | MS 461 | Introduction to Operations Research |
|                         | MS 492 | Graph Theory and Combinatorics      |
| 4) Geometry:            | MS 370 | College Geometry                    |
|                         | MS 372 | Non-Euclidean Geometry              |
|                         | MS 371 | Projective Geometry                 |

B) Successful completion of at least nine additional hours of approved mathematics courses with second digit 5 or greater

### Option II

Those majors intending to enter industry or other applied fields should seriously consider this option or Option III. Majors who plan to prepare for the actuarial profession should be certain to include in their programs Linear Algebra, Probability and Statistics I & II, Numerical Analysis, and the appropriate courses in the School of Business, Economics and Management.

#### Requirements:

A) Successful completion of:

- |        |                               |
|--------|-------------------------------|
| MS 350 | Differential Equations        |
| MS 362 | Probability and Statistics I  |
| MS 363 | Probability and Statistics II |
| MS 380 | Linear Algebra                |
| MS 460 | Mathematical Modeling         |

- B) Successful completion of two of the following:
- |    |     |                                       |
|----|-----|---------------------------------------|
| MS | 354 | Topics in Advanced Calculus           |
| MS | 364 | Numerical Analysis I                  |
| MS | 366 | Linear Programming                    |
| MS | 461 | Introduction to Operations Research   |
| MS | 492 | Graph Theory and Finite Combinatorics |
- C) Successful completion of at least 18 hours in allied disciplines, outside the department, which utilize mathematical techniques. The particular program of courses must be approved in writing by the department

### Option III

This option is designed for those students who wish to combine mathematical expertise with a knowledge of computer science.

#### Requirements:

- A) Successful completion of five of the following courses:
- |    |     |                                     |
|----|-----|-------------------------------------|
| MS | 350 | Differential Equations              |
| MS | 354 | Topics in Advanced Calculus         |
| MS | 355 | Complex Analysis                    |
| MS | 362 | Probability and Statistics I        |
| MS | 363 | Probability and Statistics II       |
| MS | 364 | Numerical Analysis I                |
| MS | 366 | Linear Programming                  |
| MS | 380 | Linear Algebra                      |
| MS | 450 | Partial Differential Equations      |
| MS | 460 | Mathematical Modeling               |
| MS | 461 | Introduction to Operations Research |
- B) Successful completion of five additional approved computer science courses with second digit 5 or greater

### REQUIREMENTS FOR THE MATHEMATICS MINOR

A minor in mathematics may be obtained by successfully completing the 20 hours of courses listed below:

**Required:** MS 152, Calculus A; MS 153, Calculus B; MS 290, Foundations of Mathematics; and CS 160, Introduction to Programming: FORTRAN; plus two additional MS courses with second digit 5 or greater.

### REQUIREMENTS FOR THE COMPUTER SCIENCE MAJOR

The program in computer science offers a background in digital computing together with special courses designed to prepare the undergraduate for a career in computer programming or for further study in computer science. The major consists of 41 credit hours in mathematics and computer science courses. 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 computer science.

Computer science courses have been made available to certain categories of "visually handicapped" or "legally blind" students. The adapting hardware and software is not braille oriented but enlarges computer input and output to increase accessibility. Visually handicapped students interested in computer courses or majors must contact the Non-Traditional Student Counselor to verify accessibility.

#### Requirements:

- A) Successful completion of the following courses:
- |    |     |                                      |
|----|-----|--------------------------------------|
| CS | 160 | Introduction to Programming: FORTRAN |
| CS | 161 | Algorithms in Programming            |
| CS | 250 | Introduction to Computer Systems     |
| CS | 280 | Discrete Structures                  |
| CS | 358 | Data Structures                      |
| MS | 152 | Calculus A                           |
| MS | 153 | Calculus B                           |
- B) Successful completion of four of the following courses:
- |    |     |   |
|----|-----|---|
| CS | 350 | Systems Programming                           |
| CS | 355 | Computer Architecture                         |
| CS | 360 | Concepts of Higher Level Programming Language |



- CS 370 Topics in Computer Science
- CS 374 Numerical Analysis I
- CS 375 Numerical Analysis II
- CS 380 Introduction to the Theory of Computing
- CS 458 Advanced Data Structures
- CS 469 Introduction to Compiler Construction
- CS 472 Artificial Intelligence
- CS 497 Independent Study in Computer Science

C) Successful completion of two mathematics courses with second digit 5 or greater, excluding MS 290

## REQUIREMENTS FOR A DOUBLE MAJOR IN MATHEMATICS AND COMPUTER SCIENCE

The double major in mathematics and computer science consists of 54 credit hours of mathematics and computer science courses. 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.

### Requirements:

A. Successful completion of the following courses:

MS	152	Calculus A	CS	160	Introduction to Programming - FORTRAN
MS	153	Calculus B	CS	161	Algorithms in Programming
MS	252	Calculus C	CS	358	Introduction to Computer Science
MS	290	Foundations of Mathematics; or	CS	358	Data Structures
			CS	280	Discrete Structures (not both)

27 Credits

B. Successful completion of one course from each of the following areas:

Algebra:	MS	380	Linear Algebra
	MS	382	Abstract Algebra
Analysis:	MS	352	Real Analysis
	MS	354	Topics in Advanced Calculus
	MS	355	Complex Analysis
	MS	490	Topology
Applied Mathematics:	MS	350	Differential Equations
	MS	362	Probability & Statistics I
	MS	364	Numerical Analysis J
	MS	366	Linear Programming
	MS	460	Mathematical Modeling
	MS	461	Introduction to Operations Research
Geometry:	MS	370	College Geometry
	MS	371	Projective Geometry
	MS	372	Non-Euclidean Geometry

12 Credits

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

CS	350	Systems Programming
CS	355	Computer Architecture
CS	360	Concepts of Higher Level Programming Languages
CS	370	Topics in Computer Science
CS	374	Numerical Analysis I (not to be taken in addition to MS 364)
CS	450	Operating Systems
CS	458	Advanced Data Structures
CS	469	Introduction to Compiler Construction
CS	472	Artificial Intelligence

9 Credits

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

6 Credits

## REQUIREMENTS FOR THE COMPUTER SCIENCE MINOR

A minor in computer science may be obtained by successfully completing the 18 hours of computer science courses listed below:

**Required:** CS 160, Introduction to Programming, FORTRAN; CS 161, Algorithms in Programming; CS 250,

Introduction to Computer Systems; CS 280, Discrete Structures; and two additional CS courses with first digit 2 or greater.

## COMPUTER SCIENCE AND MATHEMATICS FOR EDUCATION MAJORS

A) The Department of Mathematics and Computer Science in cooperation with 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:

I. Successful completion of the following:

MS	152	Calculus A
MS	153	Calculus B
MS	252	Calculus C
MS	290	Foundations of Mathematics; or
CS	280	Discrete Structures
CS	160	Introduction to Programming: FORTRAN

II. Successful completion of one course from each of the following areas:

Algebra:	MS	380	Linear Algebra
	MS	382	Abstract Algebra
Analysis:	MS	352	Real Analysis I
	MS	354	Topics in Advanced Calculus
	MS	355	Complex Analysis
	MS	490	Topology
Applied Mathematics:	MS	350	Differential Equations
	MS	362	Probability & Statistics I
	MS	364	Numerical Analysis I
Geometry:	MS	370	College Geometry
	MS	371	Projective Geometry
	MS	372	Non-Euclidean Geometry

III. Successful completion of five of the following computer science courses:

CS	161	Algorithms in Programming
CS	250	Introduction to Computer Systems
CS	350	Systems Programming
CS	355	Computer Architecture
CS	358	Data Structures
CS	360	Concepts of Higher Level Programming Languages
CS	370	Topics in Computer Science
CS	374	Numerical Analysis I (not to be taken in addition to MS 364)

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

V. Professional Education Courses:

			<b>Credit Hours</b>
EDU	150	Preprofessional Experiences .....	2
EDU	200	Foundations of Education .....	3
EDPY	333	Human Growth and Development .....	3
EDU	314	Secondary Curriculum .....	3
EDU	316	Introduction to Learning Disabilities .....	3
MSED	345	Teaching Mathematics in the Secondary School .....	3
EDU	324	Student Teaching .....	12

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 MSED 345.

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

B) A minor in computer science may be obtained by successfully completing 21 hours of the computer science courses listed below:

**Required:** CS 160, CS 161, CS 280, CS 360, CSED 345.

Two courses from the following: CS 250, CS 350, CS 358, CS 374, CS 370

C) A minor in mathematics may be obtained by successfully completing 18 hours of mathematics courses in which the second digit is 5 or greater.

- D) Early Childhood or Elementary majors may fulfill an area concentration by successfully completing MS 131, MS 231, MS 232, and seven elective three-credit hour mathematics courses with MS code numbers of 120 or above.
- E) Early Childhood or Elementary majors may complete an academic minor in mathematics by successfully completing MS 131, MS 231, MS 232 and three elective three-credit hour mathematics courses with MS code numbers of 120 or above.

## RECOMMENDED COURSES FOR NON-MAJORS

Students who desire an introductory course to satisfy the Area 3 General Education requirements should consider MS 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.

MS	109	Linear Systems
MS	110	Elementary Mathematical Analysis (or MS 152 and MS 153 for greater depth in calculus)
CS	100	Introduction to Computer Science (or CS 160 for greater depth in computer programming)
MS	120	Introduction to Statistics (or MS 211 and MS 212 for greater depth in probability and statistics)

## COURSE DESCRIPTIONS

### Computer Science

#### CS 100 Introduction to Computer Science

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.

#### CS 160 Introduction to Programming: FORTRAN

A study of programming techniques and applications using the FORTRAN language. Prerequisite: none.

Cr 3.

#### CS 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 PASCAL. Prerequisite: CS 160.

Cr 3.

#### CS 230 Programming in COBOL and RPG

A study of programming languages used primarily in business. Major emphasis will be on COBOL with some emphasis on RPG. Prerequisite: CS 160.

Cr 3.

#### CS 234 Computer Programming for Elementary Teachers

The course introduces the Elementary Education major to programming techniques and applications using the BASIC language. No programming skills will be assumed. Prerequisite: MS 131.

Cr 3.

#### CS 240 Programming in PL/1

A continuation of the study of programming principles through study of the PL/1 language. Prerequisite: CS 160.

Cr 3.

#### CS 250 Introduction to Computer Systems

An introduction to the structure and organization of digital computers and the use of assembly language programming systems. Prerequisite: CS 161.

Cr 3.

#### CS 280 Discrete Structures

Concepts of modern algebra, set theory, Boolean algebra, elements of graph theory, and their application to computer science. Prerequisite: CS 161.

Cr 3.

#### CS 350 Systems Programming

An introduction to certain basic software components and hardware features of a computer system. Topics include assembly language macros and macro processors; assemblers, including related table management techniques; loaders; input/output handling, interrupt systems. Prerequisite: CS 250.

Cr 3.

#### CS 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: CS 280 or MS 290 and CS 250. Not given every year.

Cr 3.

#### CS 358 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. Prerequisite: CS 250 and CS 280.

Cr 3.

#### CS 360 Concepts of Higher Level 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. Prerequisite: CS 358.

Cr 3.

#### CS 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: CS 250 or permission of the instructor.

Cr 3.

#### CS 374 Numerical Analysis I

A study of the theory and application of computational algorithms for interpolation, equation solv-

ing, matrix methods, integration; error analysis. Prerequisites: MS 252, CS 160, and permission of instructor. Cr 3.

**CS 375 Numerical Analysis II**  
(continuation of CS 374)

Ordinary differential equations, boundary value problems, interpolation and approximation, error analysis, large scale linear systems. Prerequisite: CS 374. Cr 3.

**CS 380 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: CS 280 or MS 290. Cr 3.

**CS 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. Prerequisites: CS 350, CS 358. Cr 3.

**CS 458 Advanced Data Structures**  
(continuation of CS 358)

Internal tables, external sorting, file organization, data base management systems and designs. Prerequisite: CS 358. Cr 3.

**CS 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. Prerequisite: CS 358. Cr 3.

**CS 472 Artificial Intelligence**

An introduction to the underlying concepts and ap-

plications 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: CS 280, CS 358. Cr 3.

**CS 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.

**CSED 345 Teaching Computer Science in the Secondary School**

Critical study of programs and techniques for teaching secondary school courses in computer literacy, computer organization, and computer programming. Prerequisite: junior or senior standing. Cr 3.

**CSCE 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. Cr 3.

## Mathematics

It is expected that students will possess and be able to operate a calculator with memory and with at least the operations  $+$ ,  $-$ ,  $\times$ ,  $\div$ , and  $\sqrt{\quad}$  if they enroll in MS 120, MS 211, MS 362, or MS 363.

\*Note that MS 010 and MS 011 carry credit only toward the associate degree.

**MS 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. Cr 3.\*

**MS 011 Intermediate Algebra**

A continuation of MS 010. Prerequisite: MS 010 or one year of high school algebra. Cr 3.\*

**MS 100 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.

**MS 101 Trigonometry**

Functions of an acute angle, reference angles,

graphs of trigonometric functions, identities and fundamental relations, trigonometric equations and inequalities, functions of the sum or difference of two angles, functions of a double angle, inverse trigonometric functions, trigonometry of a triangle, polar form of complex numbers. Prerequisite: two years of high school algebra. Cr 3.

**MS 102 Basic Technical Mathematics I**

This course, beginning with a review of basic algebra, includes the real number system, metric and British systems of measurements, geometry, and a study of functions. Topics are related to technical applications. Prerequisite: two years high school algebra and one year of geometry. Cr 3.

**MS 103 Basic Technical Mathematics II**

A continuation of MS 102 to include topics from geometry, determinants and matrices, analytic geometry, trigonometry and vector and polar coordinates. Topics are related to technical applications. Prerequisite: MS 102 or permission of the instructor. Cr 3.

**MS 104 Topics in Mathematics**

A general course designed for students not majoring in mathematics or computer science. The emphasis will be on the basic concepts encountered in mathematics as well as the applications of mathematics. The topics presented may be interdisciplinary in nature. A student may enroll twice, with the instructor's permission, for an additional three hours of credit not to exceed a total of six credit hours for the course. Prerequisites: two years of high school algebra and one year of geometry.

Cr 3.

**MS 109 Linear Systems**

An introduction to vectors, matrices, and linear systems of algebraic equations; linear programming; elementary functions. Prerequisites: two years of high school algebra and one year of geometry. Cr 3.

**MS 110 Elementary Mathematical Analysis**

A unified treatment of the elementary functions of analysis: their analytical properties including derivatives, integrals, and series; introduction to multivariate calculus; applications. Prerequisites: two years of high school algebra and one year of geometry. Cr 3.

**MS 120 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.

**MS 131 Number Systems for Elementary Teachers**

This is the first course in a three-course sequence in mathematics recommended by the Committee on the Undergraduate Mathematics Program of the Mathematical Association of America for prospective primary and elementary teachers. Major emphasis is placed on an intuitive approach to the real number system and its subsystems. Prerequisites: two years of high school algebra and one year of geometry. Cr 3.

**MS 140 Pre-Calculus Mathematics**

A brief review of elementary algebra followed by a study of the algebraic, exponential, logarithmic, and trigonometric functions. Prerequisites: 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.

**MS 152 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. Prerequisites: two years of high school algebra plus geometry and trigonometry, or MS 140. Cr 4.

**MS 153 Calculus B**

A continuation of Calculus A. Calculus B will usually include infinite series and an introduction to vectors. Prerequisite: MS 140. Cr 4.

**MS 211 Probability**

Discrete and continuous sample spaces; common

probability laws; expected values; sampling distributions. Prerequisites: MS 110 or MS 152. Cr 3.

**MS 212 Statistics**

Sampling distributions; estimation; hypothesis testing; introduction to regression analysis and analysis of variance. Applications primarily in business and economics. Prerequisite: MS 211. Cr 3.

**MS 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: MS 131. Cr 3.

**MS 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: MS 131. Cr 3.

**MS 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: MS 131. Cr 3.

**MS 235 History of Mathematics for Elementary Teachers**

A history of certain topics in number theory, geometry, and elementary algebra. Prerequisite: MS 131. Cr 3.

**MS 252 Calculus C**

Multivariate calculus and vector calculus. Prerequisite: MS 153. Cr 4.

**MS 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.

**MS 291 The Real Numbers**

An axiomatic construction of the real number system. Prerequisite: CS 280 or MS 290 or permission of instructor. Cr 3.

**MS 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: CS 280 or MS 290. Cr 3.

**MS 350 Differential Equations**

A study of various methods for solving ordinary differential equations and initial value problems including transform, numerical, and series methods. Prerequisite: MS 252. Cr 3.

**MS 352 Real Analysis I**

Limits, continuity, differentiation and integration of functions of one or more real variables, infinite series, uniform convergence, and other selected topics. Prerequisites: MS 252, and CS 280 or MS 290. Cr 3.

**MS 353 Real Analysis II**

A continuation of Real Analysis I. Prerequisite: MS 352. Cr 3.

**MS 354 Topics in Advanced Calculus**

Selected topics on multivariate functions, vectors transformations, line integrals, and surface integrals. Prerequisites: MS 252, and CS 280 or MS 290. Cr 3.

**MS 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: MS 252 or permission of instructor. Cr 3.

**MS 362 Probability and Statistics I**

Probability laws, random variables and distributions, estimation and hypothesis testing, regression, correlation, analysis of variance. Emphasis on applications. Prerequisite: MS 153. Cr 3.

**MS 363 Probability and Statistics II**

An analysis of some of the methods used in MS 362. Topics include moment generating functions. Functions of random variables, limit theorems, principles of estimation and hypothesis testing. Additional topics in regression and non-parametric methods. Prerequisites: MS 362 and MS 252. Cr 3.

**MS 364 Numerical Analysis I**

A study of the theory and application of computational algorithms for interpolation, equation solving, matrix methods, integration; error analysis. Prerequisites: MS 252, CS 160, and permission of instructor. Cr 3.

**MS 365 Numerical Analysis II**

(continuation of MS 364)  
Ordinary differential equations, boundary value problems, interpolation and approximation, error analysis, large scale linear systems. Prerequisite: MS 364. Cr 3.

**MS 366 Linear Programming**

A study of matrix algebra applied to the problem of optimizing a linear function subject to linear inequality constraints, utilizing the simplex procedure. Prerequisite: CS 280 or MS 290. Cr 3.

**MS 370 College Geometry**

Selected topics from Euclidean geometry. Prerequisite: CS 280 or MS 290. Cr 3.

**MS 371 Projective Geometry**

Synthetic and analytic projective geometry, including finite projective planes. Prerequisite: CS 280 or MS 290. Cr 3.

**MS 372 Non-Euclidean Geometry**

A development of one or more of the non-Euclidean geometries. Prerequisite: CS 280 or MS 290. Cr 3.

**MS 380 Linear Algebra**

An introduction to the theory of vector spaces and linear transformations. Prerequisite: CS 280 or MS 290. Cr 3.

**MS 382 Abstract Algebra**

Algebraic structures, such as groups, rings, integral domains, and fields. Prerequisite: CS 280 or MS 290. Cr 3.

**MS 390 History of Mathematics**

The development of mathematics from ancient to modern times. Prerequisites: MS 152 and CS 280 or MS 290. Cr 3.

**MS 431 Selected Topics in Mathematics for Elementary Teachers**

A course designed to provide enrichment topics for the elementary teacher. The course will include such topics as number theory, motion geometry, topology, projective geometry, graphs, and sets and logic. Prerequisites: junior Elementary Education major and permission of the instructor. Cr 3.

**MS 432 Selected Topics in Mathematics for Elementary Teachers**

A course designed to provide enrichment topics for the elementary teacher. The course will include such topics as awareness geometry, transformational geometry, analysis of shapes, number theory, and measurement. Prerequisites: junior Elementary Education major and permission of the instructor. Cr 3.

**MS 450 Partial Differential Equations**

An introduction to the general properties of partial differential equations followed by solutions of specific equations. The techniques include eigenfunction, expansions, operational methods, and conformal mapping. Prerequisite: MS 350. Cr 3.

**MS 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 MS 461 complement each other. Prerequisites: junior or senior standing, some elementary calculus including differentiation and integration, elementary probability, and some computer programming experience. Cr 3.

**MS 461 An Introduction to Operations Research**

A study of some of the problem structures facing the decision maker in management and the social sciences and the methodologies used in reaching optimal solutions. Typical topics might be from among; allocation, scheduling, inventory, optimization, conflict resolution, game theory, waiting lines, decisions under uncertainty, simulation. This course and MS 460 complement each other. Prerequisites: junior or senior standing, some elementary calculus including differentiation and integration, elementary probability, and some computer programming experience. Cr 3.

**MS 490 Topology**

An introduction to fundamental concepts in topology, including topological spaces, mappings, convergence, separation and countability, compactness, connectedness, metrization, and other selected topics. Prerequisites: MS 252 and CS 280 or MS 290. Cr 3.

**MS 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 sciences. Prerequisite: CS 280 or MS 290. Cr 3.

**MS 497 Independent Study in Mathematics**

An opportunity for juniors and seniors who have demonstrated critical and analytical capability to pursue a project independently, charting a course and exploring an area of interest within their major field. Prerequisites: junior or senior standing, permission of the instructor and permission of the department chairman. Cr 1-3.

**MS 498 Topics**

Selected topics in advanced mathematics. Prerequisite: permission of instructor. Cr 3.

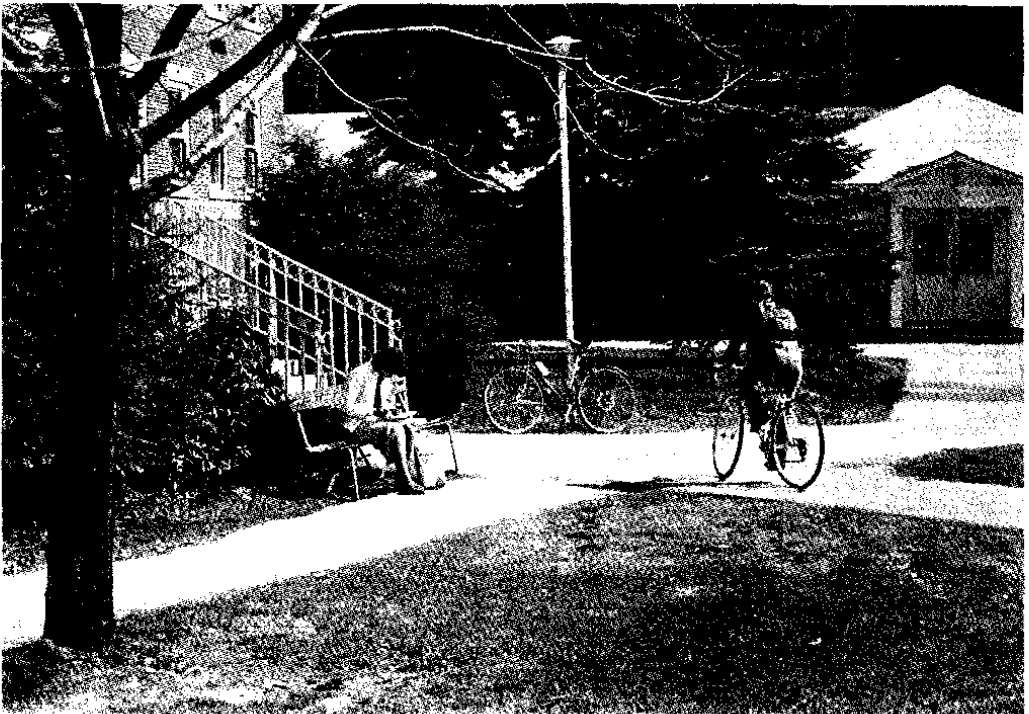
**MSCE 200-201, 300-301, 400-401 Cooperative Education in Mathematics**

The student has the opportunity to relate academic knowledge to practical experience in a job situation. The University makes arrangements with certain institutions, businesses, and industries to employ qualified students for specific jobs for a set time period. The student's work is ordinarily in a related field, and the work experiences increase in difficulty and responsibility as the student progresses through the sequence of courses. The experiences are approved on a case-by-case basis by the department. Evaluation is done with the employer and a faculty supervisor. Prerequisite: open to qualified students, subject to availability of suitable jobs. Cr 1-5.

**Mathematics Education**

**MSED 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

Chairman of Music Department: Jerry L. Bowder, 206 Corthell Hall, Gorham.

Professor Bowder; Associate Professor R. Cole; Assistant Professors P. Martin, D. Maxwell, R. Russell; Instructor J. Boden; Lecturers A. Freeman, E. Jones; Portland String Quartet in residence: Kecskemethy, Lantz, Adams, Ross.

## APPLIED MUSIC FACULTY

Piano:	Naydene Bowder Thomas Bucci Ronald Cole Ocy Downs Robert Glover David Maxwell Richard Roberts	Flute:	Frances Drinker Rhonda Martin
Voice:	Linda Freeman Rhonda Martin Robert Russell Stewart Shuster	Oboe:	Neil Boyer
Organ:	David Maxwell	Clarinet:	Robert Carabia Eugene Jones
Violin:	Deirdre Clark Stephen Kecskemethy Ronald Lantz	Saxophone:	Bill Street
Viola	Julia Adams	Bassoon:	Ardith Freeman
Cello:	Katherine Graffam Paul Ross	Trumpet:	Bruce Hall John Schnell
Bass	Katherine Graffam	French Horn:	John Boden Nina Allen Hangen
		Trombone:	James Bennett Peter Sexauer
		Euphonium:	David Winer
		Tuba:	David Winer
		Percussion:	Henry Dempsey
		Harp:	Deirdre Carr
		Classical Guitar:	Christopher Kane Michael Katz

The Department of Music offers a number of music groups 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, minors in music are offered for students majoring in Elementary Education and in the College of Arts and Sciences. A Master of Science in Education with a music concentration is available through the College of Education Graduate Division.

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.

Additional lessons for music majors, beyond those required for the degree, will be subject to a fee of \$120.00 for half-hour lessons and \$240.00 for hour lessons.

Students other than music majors or minors will be accommodated for applied music lessons if teacher time is available, but will be subject to a fee of \$120.00 for one credit or \$240.00 for two credits.

Interested students should make inquiry at the Music Department office. These fees must be paid before lessons commence.

## AUDITION REQUIRED

Admission criteria for degree programs in music, major and minor, will be based on the following elements:

- A. The applicant's high school record, including recommendations, SAT achievement scores.
- B. An audition, including performance on the applicant's major instrument, and aural comprehension, rhythmic recitation, and sight singing tests which are administered to each applicant individually by a member of the staff.
- C. A written standardized musical achievement test.

## ADVANCED STANDING

Students who desire to apply for advanced standing in music curricula should apply to the chairman of the department for a special examination.



## **JURY EXAMS**

Each student enrolled in the Performance and Music Education degree programs will play a jury exam on his/her major instrument at the end of each academic year. The jury panel will determine a level of performance and submit a written evaluation which will be included in the student's file.

### **DEPARTMENT STANDARDS** **Applied Music Standards**

Students are required to perform at the appropriate level of competence as established by the music faculty. Each student's level will be determined through the jury performance at the end of each spring semester.

#### **Academic Standards**

Each student must earn grades of C or better in all courses which count toward fulfillment of major requirements. D grades, like 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/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.

Each student must attain a 2.25 minimum GPA before being admitted to junior and 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.

### **CURRICULUM FOR MUSIC EDUCATION MAJORS** **Special Requirements**

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 General Education Requirements and the physical education requirements.

In addition to the General Education Requirements, Music Education majors will be required to take (a) a three-credit course in Educational Psychology and (b) either Modern Philosophies of Education or Studies in Educational Foundations.

In addition to the regular curriculum, all Music Education majors will meet the following requirements:

1. Fulfillment of minimum requirements in both voice and piano, regardless of major instrument
2. Participation in at least one major instrumental and one major vocal organization each semester; non-instrumentalists will be in two vocal groups.  
  
Pianists will satisfy one credit of this requirement with accompanying.
3. Successful completion of seven semesters of major applied 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**

Each student must successfully complete the piano-proficiency requirement by the end of the third week of the semester before student teaching. The student must enroll in applied piano each semester until the requirement is met. If the piano proficiency has not been met at the end of four credits of study, the student will continue applied piano at his/her own expense.

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 teacher feel that the student is qualified.

Requirements for the piano-proficiency exam are as follows:

1. Be prepared to play all major and minor scales (2 octaves, hands together)
2. Play a prepared piece of the student's choice of at least the difficulty of a Sonatina by Clementi or Kuhlau
3. Offer evidence of study of a representative selection of piano literature
4. Sight read:
  - a. melody with chord symbols
  - b. hymn-style composition

### **Voice Proficiency Requirement**

All students enrolled in the B.S. 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:

- A. The student will be prepared to demonstrate and explain the principles of singing, including:
  1. Posture
  2. Breathing
  3. Tone Production
  4. Articulation
- B. The student will submit a representative repertoire list of twelve songs, including songs in English and at least one foreign language
- C. The student will be prepared to perform from memory six songs, at least one of which is in a foreign language
- D. If the proficiency is not met after 4 credits of study, the student will continue to study for no credit at his/her own expense until this standard is met

### **Professional Education**

All Music Education majors are required to take the following professional education course:

EDU	324	Student Teaching (12 credits)
EDU	350	Modern Philosophies of Ed. (3 credits)
	or	
EDU	200	Studies in Educational Foundations (3 credits)
EDPY		Any EDPY course (3 credits)

Student teaching is the culmination of a comprehensive, preprofessional, required sequence of activities which includes the following:

Freshman year:

The equivalent of two days of directed observation of music education in cooperating schools in surrounding areas, as arranged by the Music Department.

Sophomore year:

The equivalent of two days of assisting classroom teachers in music. Music education students serve 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 which encompasses both elementary and secondary as well as instrumental and vocal areas.

In addition to the basic 18 credit hours in professional education, Music Education majors will complete the following:

**Instrumental emphasis:**

- MUED 220 \*Woodwind Class
- MUED 221 \*Brass Class
- MUED 222 \*Percussion Class
- MUED 320 and 321 \*String Class
- MUED 322 \*Elementary General Music Methods
- MUED 324 \*Instrumental Methods
- MUED 420 \*Marching Band Techniques

**Vocal Emphasis:**

- MUED 220 \*Woodwind Class
- MUED 221 \*Brass Class
- MUED 222 \*Percussion Class
- MUED 320 \*String Class
- MUED 322 \*Elementary General Music Methods
- MUED 323 \*Secondary Choral Methods

Select one

**General emphasis:**

- MUED 220 \*Woodwind Class
- MUED 221 \*Brass Class
- MUED 222 \*Percussion Class
- MUED 320 \*String Class
- MUED 321 \*String Class (or Vocal Pedagogy)
- MUED 322 \*Elementary General Music Methods
- MUED 324 \*Instrumental Methods
- MUED 323 \*Secondary Choral Methods

### Area Specialization

The music content program consists of the following courses:

- MUS 120, 121, 220, 221 History of Music
- MUS 130, 131, 230, 231 Theory
- MUS 132, 133, 232, 233 Solfeggio
- MUS 150, 151, 250, 251 Applied Music, Minor
- MUS 160, 161, 260, 261 Applied Music, Major
- MUS 244 Basic Conducting
- MUS 442 (7 semesters) Recital Class
- MUS 255 \*Guitar (vocal and general emphasis)
- MUS 344 \*Instrumental Conducting (instrumental and general emphasis)
- MUS 345 \*Choral Conducting (vocal and general emphasis)
- MUS 240, 340 \*Instrumental Conducting Lab (instrumental and general emphasis)
- MUS 241, 341 \*Choral Conducting Lab (vocal and general emphasis)
- MUS 420 \*Orchestration (instrumental emphasis)  
[general emphasis: choose one]
- MUS 421 \*Choral Arranging (vocal emphasis)
- MUS 355 \*Vocal Pedagogy (vocal emphasis) general emphasis students will choose vocal pedagogy or string class

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.

### Summary

	Instrumental	Vocal	General
USM General Education Requirements (including P.E.)	32-36	32-36	32-36
Professional Education	30	26	32
Area Specialization	64½	66½	67½
<b>Total</b>	126½-130½	124½-128½	131½-135½

## CURRICULUM FOR BACHELOR OF ARTS IN MUSIC

The Bachelor of Arts degree with a major in Music 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 aim of the program is to instill a thorough understanding of the various aspects of music and their relationship to contemporary society. 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.

			<b>Credit Hours</b>
USM General Education Requirements .....			30-34
Electives (including language proficiency, but not music electives).....			42
MUS	120, 121, 220, 221	History of Music, I, II, III, IV .....	12
MUS	130, 131, 230, 231	Theory I, II, III, IV .....	12
MUS	132, 133	Solfeggio I, II .....	2
MUS	320	*Seminar in Music History .....	3
MUS	330, 331	*Form and Analysis I, II .....	5
MUS	332	*Counterpoint .....	3
Applied Music .....			4
Ensembles .....			4
Music Electives .....			9
			126-130

The University will subsidize up to a total of 16 credit hours of applied lessons for B.A. Music students.

The Bachelor of Arts in Music Curriculum requires a total of 126-130 hours.

“Language proficiency” means completion of a second year of a language. This may be bypassed by examination for no academic credit.

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.

### **CURRICULUM FOR BACHELOR OF MUSIC (Performance)**

The Bachelor of Music (Performance) is designed to provide the opportunity for a study of music to meet the needs of those who wish to prepare themselves for a career in music performance, and those who plan to do graduate work in applied music. The aim of the program is to instill a thorough understanding of the various aspects of music and their relationship to contemporary society and performance skills on the student's major instrument or voice. Sufficient flexibility is built into the program to allow the individual student to establish secondary areas of emphasis both in music and in the arts and sciences.

			<b>Credit Hours</b>
USM General Education Requirements .....			30-34
Electives (in any college) .....			15
Music Electives .....			6
MUS	120, 121, 220, 221	History of Music, I, II, III, IV .....	12
MUS	130, 131, 230, 231	Theory I, II, III, IV .....	12
MUS	132, 133, 232, 233	Solfeggio I, II, III, IV .....	4
MUS	321	Literature of the Major Instrument .....	2
MUS	330, 331	*Form and Analysis I, II .....	5
MUS	332	*Counterpoint .....	3
MUS	442 (8 semesters)	Recital Class .....	4
MUS	356	*Diction for Singers (voice majors only).....	(3)
MUS	170, 171, 270, 271	Applied Music, Major.....	24
MUS	370, 371, 470, 471		
MUS	372	Pedagogy of the Major Instrument .....	2
Performance Ensembles.....			6
			125-129

The Bachelor of Music (Performance) Curriculum requires a total of 125-129 hours.

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.

Performance majors, other than guitar, shall have a minimum of 4 (four) credit hours of their ensemble requirements in their 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 2 (two) credit hours shall be in Chamber Music.

Guitar performance majors shall have a minimum of 4 (four) credit hours of their ensemble requirements in an appropriate ensemble. (Guitar majors are expected to be enrolled in an appropriate ensemble whenever registered as a full-time student.) A minimum of 2 (two) credit hours shall be in Chamber Music.

Performance majors in voice must meet a minimum proficiency in two foreign languages either by exam or through completion of the 2nd semester of the basic course in the Foreign Language Department.

Diction for Singers (MUS 356) is required of voice majors only and may be taken in lieu of 3 credits of music electives.

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 proficiency exam is appropriate to the student's major.

Satisfactory completion of a short recital in the junior year and a Senior Recital is expected of all performance majors.

## CURRICULUM FOR A MINOR IN MUSIC EDUCATION

The minor in Music Education 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 successfully implement in their classrooms the planned programs recommended by music supervisors.

The minor in Music Education is comprised of the following courses:

			<b>Credit Hours</b>
MUS	100	Music History and Appreciation .....	3
		Music History Elective.....	3
MUS	130, 131	Theory I and II .....	6
MUS	132, 133	Solfeggio I and II .....	2
MUED	322	Elementary Music Methods and Materials .....	3
MUS	150, 151	Applied Music .....	2
			21

The minor in Music Education Program requires a total of 21 hours.

## CURRICULUM FOR A MINOR IN MUSIC (B.A.)

The minor in music 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 University level.

The minor in music (B.A.) is comprised of the following:

	<b>Credit Hours</b>
Elective courses in music .....	18*
Ensembles .....	2
	(minimum) 20

\*Applied Music fees, to a maximum of 8 (eight) credit hours, will be subsidized by the University only when the student demonstrates adequate proficiency.

Courses NOT acceptable for a music minor:

MUS	100	Music History and Appreciation
MUS	110	Fundamentals of Music
		All MUED Courses

## COURSE DESCRIPTIONS

### Music Courses Primarily for Non-Majors

#### **MUS 100 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 102 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 103 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 110 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.

**MUED 200 Music for the Classroom Teacher**

An activities course combining the study of music fundamentals with the teaching of music skills through sequential grade-to-grade development. This course has no prerequisites and is designed primarily for the non-music major. Cr 3.

**MUS 202 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 203 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 205 Chamber Music Literature:****Portland String Quartet**

A 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 334 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**

Open to all Students

**MAJOR ENSEMBLES**

**MUS 400 Chamber Orchestra** Cr0.5.

**MUS 401 The University Chorale**

A choral group of a hundred students from all departments; specializes in larger choral works with orchestral accompaniment; several campus performances and occasional tours. Cr 0.5.

**MUS 402 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 405 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 408 Wind Ensemble**

Cr0.5.

**SMALL ENSEMBLES****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**

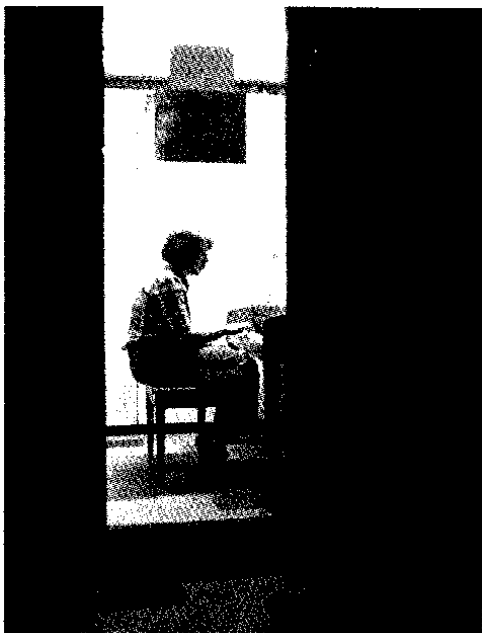
An instrumental ensemble specializing in the study and performance of jazz for large and small groups from Dixieland to present. Open to all students by audition. Cr 0.5.

**Music Courses for Majors****MUSIC HISTORY AND THEORY****MUS 120 History of Music I**

Medieval and Renaissance periods: historical development and music practices from the Gregorian Chant and early polyphony through the culmination of the madrigal in England. Musical examples of outstanding composers are played, analyzed, and discussed.

Music majors only or permission of the instructor.

Cr 3.



**MUS 121 History of Music II**

Baroque period; continuation of MUS 120, 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, triads, and chord connections; cadences; harmonization of soprano and bass lines utilizing primary triads.

Music Majors only or permission of the department.  
Cr 3.

**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 Solfeggio I**

A course in sight singing and ear training.

Music majors and minors only. Cr 1.

**MUS 133 Solfeggio II**

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

**MUS 220 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 works of outstanding composers are played, analyzed, and discussed.

Music majors only or permission of the instructor.  
Cr 3.

**MUS 221 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 Solfeggio III**

An advanced course in sight singing and ear training.

Prerequisite: MUS 133. Cr 1.

**MUS 233 Solfeggio 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. Prerequisites: 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: 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: 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: 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 421 Choral Arranging**

Arranging choral music for various combinations of voices. Prerequisite: MUS 231. Cr 3.

**MUS 498 Independent Study in Music**

To provide juniors and seniors who have demonstrated critical and analytical capability an opportunity to pursue a project independently, charting a course and exploring an area of interest within their major field.

Music majors only. Departmental permission required. Cr 1-3.

**MUSIC PERFORMANCE COURSES****MUS 150 Applied Music for Freshmen I**

May be taken in piano, voice, organ, guitar or any orchestra or band instrument. One half-hour lesson per week in the minor performance area (1 credit) in fulfillment of applied music requirements. Restricted to freshmen. Cr 1.

**MUS 151 Applied Music for Freshmen II**

A continuation of MUS 150. Cr 1.

**MUS 160 Applied Music for Freshmen I**

May be taken in piano, voice, organ, guitar or any orchestra or band instrument. A one-hour lesson per week in the major performance area (2 credits) in fulfillment of applied music requirements. Restricted to freshmen. Cr 2.

**MUS 161 Applied Music for Freshmen II**

A continuation of MUS 160. Cr 2.

**MUS 170 Applied Music for Freshmen I**

May be taken in piano, voice, organ, guitar or any orchestra or band instrument. A one-hour lesson per

week in the major area, with three hours' practice daily, would grant 3 credits for the Performance major. Restricted to freshmen. Cr 3.

**MUS 171 Applied Music for Freshmen II**  
A continuation of MUS 170. Cr 3.

**MUS 240 Instrumental Conducting Lab for Sophomores**  
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. Restricted to sophomores. Cr 0.5.

**MUS 241 Vocal Conducting Lab for Sophomores**  
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 250 Applied Music for Sophomores I**  
May be taken in piano, voice, organ, guitar or any orchestra or band instrument. One half-hour lesson per week in the minor performance area (1 credit) in fulfillment of applied music requirements. Restricted to sophomores. Cr 1.

**MUS 251 Applied Music for Sophomores II**  
A continuation of MUS 250. Cr 1.

**MUS 255 Guitar**  
An introduction to basic guitar skills. Emphasis is placed upon those skills which lead to playing effective accompaniments. Cr 1.

**MUS 260 Applied Music for Sophomores I**  
May be taken in piano, voice, organ, guitar or any orchestra or band instrument. A one-hour lesson per week in the major performance area (2 credits) in fulfillment of applied music requirements. Restricted to sophomores. Cr 2.

**MUS 261 Applied Music for Sophomores II**  
A continuation of MUS 260. Cr 2.

**MUS 270 Applied Music for Sophomores I**  
May be taken in piano, voice, organ, guitar or any orchestra or band instrument. A one-hour lesson per week, with three hours' practice daily, would grant 3 credits for the Performance major. Restricted to sophomores. Cr 3.

**MUS 271 Applied Music for Sophomores II**  
A continuation of MUS 270. Cr 3.

**MUS 340 Instrumental Conducting Lab for Juniors**  
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. Restricted to juniors. Cr 0.5.

**MUS 341 Vocal Conducting Lab for Juniors**  
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. Restricted to juniors. 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 Vocal 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 350 Applied Music for Juniors I**  
May be taken in piano, voice, organ, guitar or any orchestra or band instrument. One half-hour lesson per week in the minor performing area (1 credit) in fulfillment of applied music requirements. Restricted to juniors. Cr 1.

**MUS 351 Applied Music for Juniors II**  
A continuation of MUS 350. Cr 1.

**MUS 355 Vocal Pedagogy**  
Basic vocal principles and how to teach them. Prerequisite: at least one semester of vocal study. Cr 1.

**MUS 360 Applied Music for Juniors I**  
May be taken in piano, voice, organ, guitar or any orchestra or band instrument. A one-hour lesson per week in the major performing area (2 credits) in fulfillment of applied music requirements. Restricted to juniors. Cr 2.

**MUS 361 Applied Music for Juniors II**  
A continuation of MUS 360. Cr 1.

**MUS 370 Applied Music for Juniors I**  
May be taken in piano, voice, organ, guitar or any orchestra or band instrument. A one-hour lesson per week, with three hours' practice daily, would grant 3 credits for the Performance major. Restricted to juniors. Cr 2.

**MUS 371 Applied Music for Juniors II**  
A continuation of MUS 370. 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 440 Instrumental Ensemble for Seniors**  
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. Restricted to seniors. Cr 0.5.



**MUS 442 Recital Class**

Performance in major field, stage department, and evaluation of performances. May be repeated for credit. Cr 0.5.

**MUS 450 Applied Music for Seniors I**

May be taken in piano, voice, organ, guitar or any orchestra or band instrument. One half-hour lesson per week in the minor performing area (1 credit) in fulfillment of applied music requirements. Restricted to seniors. Cr 1.

**MUS 451 Applied Music for Seniors II**

A continuation of either MUS 450 or MUS 351. Cr 1.

**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 460 Applied Music for Seniors I**

May be taken in piano, voice, organ, guitar or any orchestra or band instrument. A one-hour lesson per week in the major performing area (2 credits) in fulfillment of applied music requirements. Restricted to seniors. Cr 2.

**MUS 461 Applied Music for Seniors II**

A continuation of either MUS 460 or MUS 361. Cr 2.

**MUS 470 Applied Music for Seniors I**

May be taken in piano, voice, organ, guitar or any orchestra or band instrument. A one-hour lesson per week in the major area, with three hours' practice daily, would grant 3 credits for the Performance major. Restricted to seniors. Cr 3.

**MUS 471 Applied Music for Seniors II**

A continuation of MUS 470. Cr 3.

**MUSIC EDUCATION COURSES****MUED 220 Woodwind Class**

Methods of teaching woodwind instruments; practical experience on various woodwinds; and elements of transposition. Prerequisite: MUS 131 and 133. Cr 1.

**MUED 221 Brass Class**

Methods of teaching brass instruments including practical experience on the various instruments;

elements of transposition. Prerequisites: MUS 131 and 133. Cr 1.

**MUED 222 Percussion Class**

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

**MUED 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.

**MUED 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: MUED 320. Cr 1.

**MUED 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.

**MUED 323 Secondary Choral Methods**

Techniques and procedures for teaching choral music in junior and senior high schools. Restricted to juniors and senior music majors. Cr 3.

**MUED 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.

**MUED 420 Marching Band Techniques**

The course is designed to prepare the music educator to organize and effectively teach Marching Band in the public schools. 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 1.

# PHILOSOPHY

Acting Chairman of Philosophy Department: Jeremiah P. Conway, 221 Science Building, Portland.

Professors Gavin, Grange, F. Schwanauer; Associate Professor Conway; Assistant Professor Louden.

Courses in philosophy are designed primarily to provide students with sound principles of critical thinking, to help them acquire a knowledge of the development and problems of philosophic thought, and to lead them to formulate an intelligent view of the meaning and value of life in terms of their own experience.

The study of philosophy has traditionally been one which endeavors to give the broadest understanding possible of a true liberal education and has placed little emphasis on the vocational utility of such a study. However, students have found a philosophical background useful for all vocations.

The major in philosophy is designed to meet the following requirements: (1) those who wish to derive the broadest liberal education through the study of philosophy, but have no professional interest in the field; (2) those who desire a broadly-based liberal education preparatory to graduate study in a field other than philosophy; for example: medicine, law, theology, or government; (3) those who, by reason of professional interest in philosophy, plan to do graduate work and teach in the field.

Each major in philosophy will arrange a program of courses in conference with the chairman or a member of the department assigned by him. 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 30 hours of courses beyond a PLY 100-level course.

All philosophy majors must take four of the following History of Philosophy courses offered by the department:

PLY	310	Ancient Philosophy
PLY	320	Medieval Philosophy
PLY	330	Early Modern Philosophy
PLY	340	Late Modern Philosophy
PLY	350	American Philosophy
PLY	360	Existentialism
PLY	370	Linguistic Analysis

In the senior year, the following are required: (1) A senior paper to be written in connection with participation in the Senior Tutorial. This paper should deal with material not previously studied, or should extend knowledge of a subject gained by attending courses. (2) A comprehensive oral examination based on the Senior Tutorial paper. (3) The Graduate Record Examination in philosophy, for those intending to go on to graduate school in philosophy.

In the last year a Senior Tutorial is required. This consists of a major (minimum 50 pages) paper on a topic selected by the student and mentored by one member of the department. Upon completion of the paper, an oral examination of its contents is held before the full department.

Those intending to go on to graduate school in philosophy will have to take the Graduate Record Examination in philosophy.

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.

## THE MINOR PROGRAM IN PHILOSOPHY

Students who wish to pursue a minor in philosophy are required to take five (5) courses beyond the introductory level, that is, any PLY 100 course.

The five courses which are taken beyond the introductory level should be structured according to the following schema:

1) Two courses in the history of philosophy:

PLY	310	History of Ancient Philosophy
PLY	320	History of Medieval Philosophy
PLY	330	History of Early Modern Philosophy
PLY	340	History of Late Modern Philosophy
PLY	350	History of American Philosophy
PLY	360	Existentialism
PLY	370	Linguistic Analysis

2) One course which examines the foundations of philosophical inquiry:

PLY	150	Symbolic Logic
PLY	200	Metaphysics
PLY	210	Ethical Theories
PLY	270	Epistemology

3) Two courses which relate philosophical theories to contemporary problems:

PLY	211	Ethics in Business
PLY	220	Philosophy of Art
PLY	230	Philosophy of Religion
PLY	240	Political Philosophy
PLY	250	Philosophy of Science
PLY	260	Philosophy of Law
PLY	275	Theories of Language (cross-listed with COM 275)
PLY	290	Problems of Philosophy (any PLY 290 course)

## COURSE DESCRIPTIONS

### **PLY 101 Introduction to Philosophy: Man and His Will**

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.

### **PLY 102 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.

### **PLY 103 Introduction to Philosophy: Human Alienation**

Why does modern man picture himself as alienated from nature and his fellow man? 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.

### **PLY 104 Introduction to Philosophy: Ways of Knowing**

How much can we really know? Consideration will be given to some theories of knowledge and how they may be applied to science and human relations. Classic philosophical texts will be critically examined by way of illustration. Cr 3.

### **PLY 105 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.

### **PLY 106 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.

### **PLY 150 Symbolic Logic**

Techniques of modern deductive logic; properties of formal systems; logical implications and paradoxes of language. Prerequisite: any PLY 100-level course. Cr 3.

### **PLY 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 PLY 100-level course. Cr 3.

### **PLY 210 Ethical Theories**

Critical evaluation of major ethical theories and systems. Extensive reading in original texts. Analysis of contemporary ethical issues. Prerequisite: any PLY 100-level course. Cr 3.

### **PLY 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 businessman in resolving the ethical problems with which business is faced. Cr 3.

### **PLY 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 PLY 100-level course. Cr 3.

### **PLY 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 PLY 100-level course. Cr 3.

**PLY 240 Political Philosophy**

Critical evaluation of political philosophies, classical and contemporary; extensive reading in original texts; analysis of contemporary political issues. Prerequisite: any PLY 100-level course. Cr 3.

**PLY 250 Philosophy of Science**

Nature of scientific explanation; relationship among facts, laws, and theories; clarification of methods and concepts in science, such as cause, determinism, teleology, theory, law, probability. Prerequisites: any PLY 100-level course. Cr 3.

**PLY 260 Philosophy of Law**

This course will deal with the philosophical foundations of law in the West. We will examine in detail the various schools of law beginning with the Greek view of law, mankind, and society, move up to the modern schools of Legal Positivism, Sociological Jurisprudence, and Natural Law, and attempt to delineate the strains of these positions within the American system of law. Prerequisite: any PLY 100-level course. Cr 3.

**PLY 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 PLY 100-level course. Cr 3.

**PLY 275 Theories of Language (COM 275)**

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 PLY 100-level course. Cr 3.

**PLY 290 Problems of Philosophy**

An examination of the development of the idea of Atheism. Great classical texts of Western culture will be used to analyze the concept of God's existence and its consequences. Plato and Aristotle, Aquinas and Spinoza, Kant and Hegel, Whitehead and the Existentialists shall be studied in order to determine the personal, ethical and cultural consequences of Atheism and Theism. Prerequisite: any PLY 100-level course. Cr 3.

**PLY 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 PLY 100-level course. Cr 3.

**PLY 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 PLY 100-level course. Cr 3.

**PLY 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 PLY 100-level course. Cr 3.

**PLY 330 History of Early Modern Philosophy**

Main currents of rationalism and empiricism are explored, as developed in major writings from Descartes to Hume. Prerequisite: any PLY 100-level course. Cr 3.

**PLY 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 PLY 100-level course. Cr 3.

**PLY 350 American Philosophy**

History and background of the origin of philosophical ideas in America; particular emphasis given to Peirce, James, Royce, Dewey, Whitehead. Prerequisite: any PLY 100-level course. Cr 3.

**PLY 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 PLY 100-level course. Cr 3.

**PLY 370 Linguistic Analysis**

A 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. Cr 3.

**PLY 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.

**PLY 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.

**PLY 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.

**PLY 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 AND ENGINEERING

Coordinator of Physics and Engineering: ●open

Associate Professors: Armentrout, Hopkinson, Walkling

## ENGINEERING PROGRAM AT USM

The engineering section of the Department of Physics and Engineering coordinates and offers a first year basic program that is applicable to continuing studies at the ●rono campus leading to degrees in the various curricula. All USM engineering students in good standing are eligible for transfer to UM● for their 2nd, 3rd, and 4th years. The transfer procedure is accomplished through the USM Engineering Advisor.

The following courses are normally taken in the first year:

Calculus A and B  
Physics 121 and 122  
Chemistry 113, 114, and 115, 116  
Engineering Design 101 and 102  
Computer Programming 160  
English 100 or Elective

However, all students do not necessarily take all of these courses depending upon the requirements of the UMO engineering major departments as follows:

Chemical Engineering and Electrical Engineering do not require Engineering Design  
Civil, Mechanical, and Electrical Engineering require only one semester of Chemistry and not CHEM 115, 116  
Computer Programming for all except Engineering Physics (due to already full program)  
English or Elective for Electrical Engineering; others if schedule permits.

The engineering section has one faculty member, who is also the advisor as well as the program and transfer coordinator.

There are no plans at present to expand the engineering program at USM.

The following curricula are offered at the University of Maine at Orono:

Agricultural Engineering  
Chemical Engineering  
Chemistry  
Pulp and Paper Technology  
Civil Engineering  
Electrical Engineering  
Mechanical Engineering  
Engineering Physics

Reference to the UM● catalog for details is advised.

## COURSE DESCRIPTIONS

### **GEE 101 Introduction to Engineering Design I**

Principles of graphic science with illustrative exercises in multiview drawing using freehand and instrumental techniques; lettering styles; charts and graphs. Cr 3.

### **GEE 102 Introduction to Engineering Design II**

A continuation of GEE 101, which is prerequisite. Applications of graphic science with creative problems in descriptive geometry, pictorial drawing, engineering design, and mapping. Cr 3.

### **MEE 212 Thermal Engineering**

Elementary thermodynamics, mechanical apparatus, power plant equipment; engineering calculations relative to heat, power, work, and mechanical and electrical energy. Prerequisites: physics and chemistry one year each. Cr 3.

### **MEE 221 Materials Science**

The principles of materials science as applied to the metallurgy of ferrous and non-ferrous metals and alloys with emphasis on the relationship between structure and properties and their control through composition, mechanical working, and thermal treatment. Prerequisites: PHYS 121, CHEM 113, MEE 255, or equivalent. Cr 3.

### **MEE 255 Statics and Strength of Materials**

The basic principles of statics and their applications to strength of materials. Equilibrium of various systems including bridge trusses. Centroids and moments of inertia. Stresses and deformations of axially and transversely loaded members, connections, pressure vessels, shafts, beams, and columns. Prerequisites: MS 153 and PHYS 121. Cr 3.

## PHYSICS

The University of Southern Maine provides physics and related courses in the freshman and sophomore years, leading to a degree in either physics (College of Arts and Sciences) or engineering physics (College of Technology). Students successfully completing these years may automatically continue into the junior year of their program on the Orono campus and will receive their degree from the University of Maine at Orono.

Students wishing either of these programs should begin courses in physics (PHYS 121-122), Chemistry (CHEM 113, 114 and CHEM 115, 116, or in unusual cases CHEM 215, 230), and mathematics (MS 152-153) in the freshman year so as to avoid conflict in scheduling upper level courses later on.

These programs are flexible and easily tailored to meet the goals of each student. Planning for the sophomore year should be done in consultation with the departmental advisor.

### COURSE DESCRIPTIONS

#### **PHYS 100 Descriptive Physics**

For the non-science student. A treatment in semi-descriptive terms of important fundamental topics of mechanics, heat, sound, wave motion, electricity, magnetism, optics, and modern physics. Designed to develop an appreciation for the concepts, vocabulary, and methods of the science rather than a false sense of mastery. High school algebra is recommended. Lecture three hours. Not offered in 1982-1983. Cr 3.

#### **PHYS 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 laboratory or field experience may be provided. Prerequisite: a course in high school algebra. Cr 3.

#### **PHYS 106 Physics for Technology II**

A study of those areas of physics of special importance in the industrial arts area. The major portion of the course will deal with mechanics, electricity, and light. Laboratory experiments will be concentrated on basic concepts. Two hours of lecture and one two-hour lab per week. Offered fall semester only. Not offered in 1982-1983. Cr 3.

#### **PHYS 110 Radiation; Problems and Effects**

An introduction to several current topics of vital importance such as the use of nuclear fission and fusion in power generation, radioactive materials and x-rays in medical diagnosis and treatment, measurement of radiation, safety considerations, and biological effects. Intended to aid the understanding of the non-scientific 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. Text: Offprints, articles, pamphlets, references, government documents. Prerequisites: None; high school physics and chemistry helpful. One two and one-half hour sessions per week. Cr 3.

#### **PHYS 111 Elements of Physics I**

An introduction to the fundamental concepts of mechanics, sound and heat. Lectures, problem solv-

ing, demonstrations, laboratory exercises and visual aids will be used to develop an understanding of physical phenomena. Prerequisites: high school algebra. Lecture three hours, lab two hours, recitation one hour. Not offered in 1982-1983. Cr 4 1/2.

#### **PHYS 112 Elements of Physics II**

A continuation of Physics I considering the topics: optics, electricity and modern physics. Lecture three hours, lab two hours, recitation one hour. Not offered in 1982-1983. Cr 4 1/2.

#### **PHYS 121 General Physics I**

An introduction to the fundamental concepts of mechanics, sound and heat, using calculus where necessary. Recommended for students who plan further study in science, mathematics, or engineering. Prerequisite: prior or concurrent registration in MS 152 or equivalent experience. Lecture three hours, recitation two hours, lab two hours. Cr 5.

#### **PHYS 122 General Physics II**

An introduction to the fundamental concepts of electricity, magnetism, light and atomic physics, using calculus where necessary. Recommended for students who plan further study in science, mathematics, or engineering. Prerequisite: PHYS 121 or equivalent. Lecture three hours, recitation two hours, lab two hours. Cr 5.

#### **PHYS 210 Introductory Modern Physics**

A development of some of the more important concepts of physics required for understanding the properties of the electron and atomic nucleus. Prerequisites: PHYS 112 or PHYS 122, CHEM 112 or CHEM 114, and one year of calculus. Lecture three hours, lab two hours. Cr 4.

#### **PHYS 221 Intermediate Physics I**

An intermediate treatment of mechanics, heat, and wave motion to follow PHYS 121 and PHYS 122. May be taken without laboratory for 3 credits with special permission of the instructor. Prerequisites: PHYS 122 and CHEM 115 or CHEM 215 or equivalent and one year of calculus. Lecture two hours, recitation two hours, lab three hours. Cr 5.

#### **PHYS 222 Intermediate Physics II**

A continuation of PHYS 221. Topics include electricity, magnetism and optics. Lecture two hours, recitation two hours, lab three hours. Cr 5.

#### **PHYS 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.

# POLITICAL SCIENCE

Chair of Political Science Department: Oliver H. Woshinsky, 317 Luther Bonney Hall, Portland

Professor Peirce; Associate Professor Coogan, Fisher, Maiman, Roberts, Woshinsky.

## REQUIREMENTS FOR THE MAJOR IN POLITICAL SCIENCE

- a. Each major must complete a minimum of 39 hours in the department of which nine must be POL 101, 102, and 103. A grade of C minus or better is required to receive major credit in the department.
- b. Each major must take at least one course in each of the following five areas of the department:

### Judicial Process

POL 283  
POL 284  
POL 286

### Comparative Political Systems

POL 235  
POL 236  
POL 237  
POL 238  
POL 240  
POL 245  
POL 259  
POL 332

### Political Theory

POL 289  
POL 290  
POL 292

### International Politics

POL 104  
POL 239  
POL 274  
POL 275  
POL 387  
POL 388

### American Political System

POL 120  
POL 201  
POL 210  
POL 213  
POL 233  
POL 234  
POL 251  
POL 252  
POL 253  
POL 257  
POL 258  
POL 357  
POL 358

- c. Each major is required to participate in at least one seminar (POL 400, 401, 402, 403, 404). In unusual cases students may, with prior permission of the department, substitute independent study for a seminar.

Students who wish to complete a political science minor should take the following courses:

- a. POL 101, American Government (3 hours)
- b. POL 102, People and Politics (3 hours)
- c. Three (3) 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.) (9 hours).
- d. One of the following: a political science seminar, one of the departmental internships, or POL 103. (3-9 hours)
- e. A minimum of 18 hours in political science course work.

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

In special cases the requirement of POL 101 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 POL 101 waiver or receive credit for other departmental courses should petition the department through its chairman.

The Political Science Department offers students an opportunity to pursue a concentration in World Affairs by selecting interdisciplinary courses from a recommended list. See Dr. Peirce for details.

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 University's General Education Requirements.

Political science courses are normally offered on the following schedule:

Every semester: POL 101, 102, 352, 354, 355, Independent Study, at least one Seminar.

Yearly: (Fall) POL 205, 233, 283, 289. (Spring) POL 284, 290, 353, 356. (Either semester) POL 103, 104, 235, 236, 237, 251, 258, 274, 275, 307, 357, 358.

Irregularly (approximately once every two years). POL 103, 201, 210, 213, 234, 238, 239, 240, 245, 252, 253, 257, 259, 286, 292, 302, 310, 332, 387, 388.

## COURSE DESCRIPTIONS

### **POL 101 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.

### **POL 102 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 which political scientists have found helpful for understanding real political behavior. Note: POL 101 is not a prerequisite for POL 102. Cr 3.

### **POL 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.

### **POL 104 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.

### **POL 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 or special interest to the student who has an interest in the programs and politics of the State of Maine. Cr 3.

### **POL 201 Women and Politics**

An introduction to the way gender affects political

behavior. Special attention will be given to the social, psychological, and legal factors which, over the years, have inhibited women from engaging in full-scale political activity. Special consideration will also be given to the way the women's movement and the ideas of feminism have encouraged growing rates of political participation by women. The course will include a thorough review of the different behavior patterns of women and men in politics. Prerequisites: POL 101, POL 102, or permission of the instructor. Cr 3.

### **POL 210 Power and Change in American Society: 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. Cr 3.

### **POL 213 State Politics**

An examination of the formal and informal processes through which choices are made by the states. Topics will include local and regional political cultures, incentives of political elites, constitutions, legislatures, governors, bureaucracies and courts. Prerequisites: POL 101, 102, or 120. Cr 3.

### **POL 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: POL 101 or 102. Cr 3.

### **POL 234 Municipal Administration**

The management, financial control and administration of modern American cities with emphasis on administration of personnel and finance, the city plan, and line functions. Considerations will be given to the administration of public safety, transportation, health, welfare, and housing. Prerequisite: POL 101. POL 233 is recommended. Cr 3.

### **POL 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: POL 101 or 102. Cr 3.

**POL 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: 101 or 102. Cr 3.

**POL 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. Cr 3.

**POI 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: POL 101 or 102. Cr 3.

**POL 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. Cr 3.

**POL 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. POL 101, 102 or 104 are recommended. Cr 3.

**POL 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 now current in British politics. Cr 3.

**POL 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?" Prerequisite: POL 101. Cr 3.

**POL 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: POL 251 or permission of the instructor. Cr 3.

**POL 253 Systems Analysis**

An exploration of the application of systems analysis concepts and the methods of public administration. After a basic familiarity with the subject is achieved, application will be studied in relation to a line unit, administrative staff, program planning and policy development. A case study approach will be used. POL 234, 251 or 252 are recommended. Cr 3.

**POL 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: POL 101. Cr 3.

**POL 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: POL 102. Cr 3.

**POL 259 Psychology and Politics**

An introduction to the psychological roots of political behavior. The course will examine various theories of personality and motivation which explain why people act as they do in politics. It will focus on such questions as: Can "national character" explain political differences among nations? What are the psychological causes of political extremism and mass movements? Are there "authoritarian" and "democratic" personalities? What are the needs or drives which lead men into full-time political activity? The bulk of the course will focus on elite, rather than mass, behavior. Prerequisite: POL 102. Cr 3.

**POL 274 Contemporary International Affairs**

An analysis of contemporary world problems with emphasis on the interdependence of nations versus their viability as individual nation states. Cr 3.

**POL 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. Cr 3.

**POL 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: POL 101. Cr 3.

**POL 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: POL 283. Cr 3.

**POL 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: POL 101. Cr 3.

**POL 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.

**POL 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.

**POL 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: consent of the instructor. Cr 3.

**POL 302 Criminal Law**

An examination of the articulation and application of criminal sanctions by agencies of the modern state. Special attention is given to the conflict between the "due process" and "crime control" models of the criminal process. Prerequisite: CJ 215. NOTE: This course may be applied toward the Political Science Department's 36-hour major requirement but may not be used to help satisfy the department's distribution requirement. Cr 3.

**POL 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 307. Prerequisite: POL 102 or SOC 100. Cr 4.

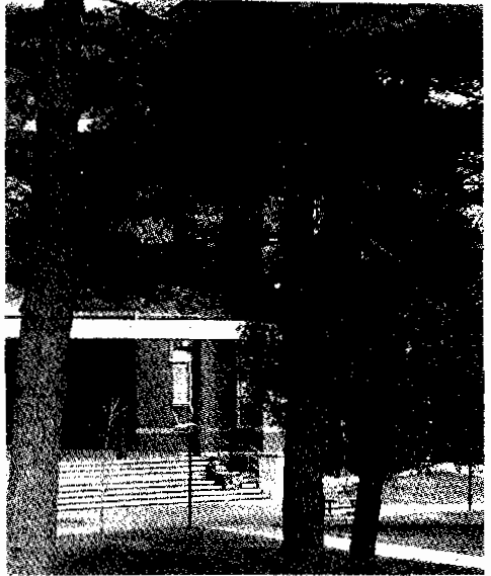
**POL 310 Comparative Justice Systems**

A cross-national analysis of the form and substance of modern economic and political contexts in which these systems exist, as well as their historical development. Emphasis is placed on underlying differences in theories of social control in an attempt to understand the role that justice systems and their personnel play in a variety of nation states. Also listed as CJ 310. Prerequisite: CJ 215. Cr 3.

**POL 332 Comparative Political Behavior**

This course will introduce students to major approaches and concepts in comparative politics. Emphasis will be placed on using theoretical concepts to understand practical politics in a variety of nations (primarily those modern industrial states of Western Europe and North America). Major topics for study; public opinion, political parties, legislative

behavior, bureaucracy. Prerequisite: POL 235 or 236, or permission of the instructor. Cr 3.

**POL 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.

**POL 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.

**POL 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.

**POL 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.

**POL 355 Congressional Internship**

Provision may be made to gain professional experience in the local offices of Maine's U.S. Con-

grossmen 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.

**POL 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 chairman for details. Readings and research reports are required. Cr 9.

**POL 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. Prerequisite: POL 101. Cr 3.

**POL 358 The American Congress**

The role of the national legislature in American politics is considered. The course undertakes a study of the men 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: POL 101 or 102. Cr 3.

**POI 387 International Law**

An analysis from the political perspective of the sources, limitations and institutions of international law as they relate to the search for peace and world order. Cr 3.

**POL 388 International Organization**

An analysis of the approaches to the problems of peace, economic and social justice at the international level. Emphasis on the United Nations' systems and its specialized agencies. Cr 3.

**POL 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.

**POL 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.

**POL 397 Independent Study III**

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.

**POL 400 Seminar in American Politics**

A seminar focusing on some aspect of American politics. Prerequisite: consent of the instructor. Cr 3.

**POL 401 Seminar in International Affairs**

A seminar which focuses on some aspect of international politics. Prerequisite: consent of the instructor. Cr 3.

**POI 402 Seminar in Comparative Politics**

A study of some aspects of comparative political institutions and behavior. Prerequisite: consent of the instructor. Cr 3.

**POL 403 Seminar in Judicial Process**

A seminar focusing on some aspect of judicial processes and behavior. Prerequisite: consent of the instructor. Cr 3.

**POL 404 Seminar in Political and Social Thought**

A seminar focusing on some aspect of political and social theory. Prerequisite: consent of the instructor. Cr 3.



# PSYCHOLOGY

Chairman of Psychology Department: John S. Bishop, 518 Science Building, Portland.

Professors Bishop, Paradise, Saldanha; Associate Professors Hearn, Sanborn, Gayton, Sytsma.

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.

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 University's General Education Requirements.

## REQUIREMENTS FOR A PSYCHOLOGY MAJOR IN ARTS AND SCIENCES

The minimum requirement for a major is 40 credit hours in psychology (no maximum) and MUST include the following courses:

			<b>Credit Hours</b>
PSY	101 and 102	General Psychology (3 credits each semester) to be taken as a two-semester sequence	...6
PSY	201	Statistics in Psychology	3
PSY	205	Experimental Methodology	3
PSY	223	Child Development	3
PSY	330	Social Psychology	3
PSY	333	Psychopathology	3
PSY	350	Psychology of Learning	3
PSY	351	Learning Laboratory	1
PSY	361	Sensation and Perception	3
PSY	365	Physiological Psychology	3
PSY	371	History and Systems	3
			<u>34</u>

Other courses offered by the department can be taken as electives to complete the 40-hour minimum.

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.

MS	100	College Algebra (Prerequisite for PSY 201)
BIO	101	Biological Principles
BIO	111	Human Anatomy and Physiology (Prerequisite for PSY 365)

PSY 101 and 102 are prerequisites for all additional psychology courses.

Psychology 101 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 201 and PSY 205 no later than their junior year. PSY 201 may be taken concurrently with PSY 102. No grade of D in any departmental course will count toward fulfillment of the major requirement.

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.

## COURSE DESCRIPTIONS

### PSY 101 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 101.

Cr 3.

**PSY 201 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 101 and MS 100 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 201. 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 101 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 101 and 102. Cr 3.

**PSY 235 Psychology of Women**

Psychology of women and psychological literature relevant to men and women. Some topics include physiological and personality differences between the sexes, sex-role development, role conflict, women and traditional therapy. NOTE: This course does not count toward major credit. Prerequisites: PSY 101 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 101 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 101 and 102. Fall semester only. Cr 3.

**PSY 330 Social Psychology**

The psychological principles which enter into the social behavior of the individual. Areas of consideration include perception, communication, attitude formation, interpersonal attraction, and group behavior. Prerequisites: PSY 101 and 102. Fall semester only. Cr 3.

**PSY 333 Psychopathology**

The etiology, development, and manifestation of the major forms of mental illness with particular emphasis upon the neuroses and psychoses. Psychological, social, and biological factors which

contribute to maladjustment are examined. Prerequisite: PSY 101 and 102. Spring semester only. 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 101 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 101, 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 101 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 201 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 101 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 101 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 101 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**

Experimental findings and theoretical analyses of

the acquisition, retention, and transfer of verbal behavior and a critical survey of theories and research on such topics as problem solving, creative thinking, reasoning, concept formation, decision making, thought and language, and related topics. Prerequisites: PSY 101 and 102. 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 201 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 101 and 111; PSY 101, 102. Cr 3.

**PSY 371 History and Systems of Psychology**

A survey of the history of psychological thought from its beginnings in Greek philosophy to modern times. Special attention will be given to the influence of philosophy and natural science on the development of contemporary psychology. The course concludes with a survey of the major systems. Prerequisite: 15 hours in psychology and/or instructor's permission. 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 which relate to such topics as jury selection and deliberation, eye witness testimony and credibility, and courtroom strategy. A term paper is required of all students. Prerequisites: PSY 101, 102, 333 and/or permission of the instructor. Spring semester only. Cr 3.

**PSY 385 Contemporary Psychotherapies**

A survey of contemporary psychotherapies including Gestalt therapy, logotherapy, bioenergetics, reality therapy, transactional analysis and rational-emotive therapy. Seminar format. This course is designed for advanced psychology majors planning to go on to graduate school in clinical or counseling psychology. Prerequisite: permission of the instructor. Fall semester only. Cr 3.

**PSY 390 Selected Topics in Psychology**

A critical in-depth investigation of one of various topics and issues in different areas of psychology (e.g., experimental, social, clinical, child-developmental, etc.) Each student is expected to complete a research project on the topic for the semester. Consult the Psychology Department for topics offered. Prerequisites: PSY 201, 205, and permission of the instructor. Cr 3.

**PSY 400 Research in Psychology I**

This course is open to qualified majors in psychology who wish to engage in independent readings on selected topics or conduct research projects. With permission of departmental chairman. Cr 3.



# SOCIAL WELFARE

Chairperson of Social Welfare Department: Joseph D. Kreisler, 7 Chamberlain Avenue, Portland.

Professor Steinman; Associate Professors Deprez, Kreisler, Rich; Assistant Professor Lazar.

The successful completion of the major leads to a BA degree in Social Welfare and prepares the student for professional practice of social work at the entry level. The social welfare curriculum is accredited by the Council on Social Work Education.

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, they may complete an MSW degree program in one instead of two years.

Students are initially admitted to the department on a provisional basis. Formal admission takes place after a student has completed appropriate department application and has had an admission interview with his or her advisor. This normally takes place in the 2nd semester of the sophomore year.

The major in social welfare consists of 39 credits of required foundation knowledge in the humanities and social sciences. These courses can also be used to satisfy the University's General Education Requirements. In addition students must take 40 credits in required social welfare courses.

In planning their program, provisional and admitted students must regularly consult with their faculty advisor to: help the student explore career objectives, review departmental requirements, design the best possible combination of required and elective courses and to facilitate a productive relationship between the student and the department.

The Social Welfare Department has a policy of awarding credits for work experience to students when a thorough review of their work experience in the human services reveals they have attained a level of competence equivalent to that expected of students in selected practice-oriented courses. See Department Policy Statement, "Advanced Credit Procedures for Social Work Methods and Community Lab."

When credits are awarded for work experience they are assigned the following course designations:

SWE: 250 Methods of Social Work Practice; credit for work experience.

SWE: 251 Community Laboratory in Social Welfare; credit for work experience.

In addition to their meeting departmental requirements for a major leading to a baccalaureate degree, students must also meet the requirements of the school or college involved, as well as the University's General Education Requirements.

## REQUIRED FOUNDATION KNOWLEDGE

(Substitutions for, or waivers of any of these courses, require the written approval of a student's advisor.)

		<b>Credit Hours</b>
<b>Introductory Level</b>		
ENG	100	College Writing .....3
ECON	101	Principle of Economics.....3
BIO	101	Biological Principles .....3
POL	101	Introduction to Government -or-
POL	102	People and Politics .....3
PLY		(Any introductory philosophy course) .....3
PSY	101 & 102	General Psychology I & II .....6
SOC	100	Introduction to Sociology.....3
		<u>24</u>
Sociology 371 Sociology of Minorities .....		3
4 other Advanced Level sociology and psychology courses.....		<u>12</u>
		15

These four other courses are selected with the advice and approval of student's advisor.

## REQUIRED COURSES

			Credit Hours
SWE 101	Introduction to Social Welfare .....		3
SWE 102	Introduction to Social Work .....		3
SWE 352 & 353	Methods of Social Work Practice .....		6
SWE 354 & 355	Community Laboratory in Social Welfare I & II .....		12
SWE 450	Social Problems and Social Welfare Policy .....		3
SWE 351	Human Services and the Consumer .....		3
SWE 370	Human Development and Social Welfare .....		3
SWE 433	Social Welfare Research .....		4
SWE 456	Issues in Social Welfare and Social Work .....		3
			40

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

## COURSE DESCRIPTIONS

### **SWE 101 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.

### **SWE 102 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/her entry into the field. Prerequisite: SWE 101. Cr 3.

### **SWE 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.

### **SWE 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.

### **SWE 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.

### **SWE 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.

### **SWE 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. SWE 274 recommended but not required. Cr 3.

### **SWE 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.

### **SWE 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.

### **SWE 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.

### **SWE 351 Human Services and the Consumer**

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. Cr 3.

### **SWE 352 Methods of Social Work Practice I**

An introduction to basic concepts and skills in social work interviewing and in the problem-solving ap-



proach 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 (SWE 354) which must be taken concurrently. Prerequisite: SWE 101. Cr 3.

#### **SWE 353 Methods of Social Work Practices II**

A continuation of SWE 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 (SWE 355) which must be taken concurrently. Cr 3.

#### **SWE 354 Community Laboratory I**

For social welfare majors: a required internship in an agency placement, designed to provide an opportunity to relate social work theory to practice. Prerequisites: SWE 101; 352 (concurrent). Cr 6.  
Pass/Fail

#### **SWE 355 Community Laboratory II**

A continuation of SWE 354. Prerequisites: SWE 352 and 354; SWE 353 concurrent. Cr 6.  
Pass/Fail

#### **SWE 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: SWE 450 or permission of instructor. Cr 3.

#### **SWE 365 Social Work with Minority Groups**

An exploration of issues in social welfare policy and social work practice as they are related to the status of minority groups and their movement for self-determination. Prerequisites: SOC 371 and six hours of social welfare. Cr 3.

#### **SWE 370 Human Development and Social Welfare**

A study of the implications of research and theory related to human development for social welfare policy and social work practice. Prerequisites: at least six hours of social welfare courses. This course is offered one semester each academic year. Cr 3.

#### **SWE 380 Child Welfare**

A study of the process of growing under handicapping social conditions and the implications for social

services and institutional change. Prerequisite: SWE 101 or permission of the instructor. Cr 3.

#### **SWE 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.

#### **SWE 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. Prerequisite: at least six hours of social welfare courses. Cr 4.

#### **SWE 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: SWE 101. This course is offered one semester each academic year. Cr 3.

#### **SWE 452 Methods of Social Work Practice III**

Provides further exploration of the theoretical knowledge and practice skills involved in utilization 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.

#### **SWE 453 Methods of Social Work Practice IV**

A continuation of SWE 452. Cr 3.

#### **SWE 454 Community Laboratory III**

An advanced field experience in human services. Prerequisites: SWE 354 and 355 or permission of the instructor. Cr var.

#### **SWE 455 Community Laboratory IV**

A continuation of SWE 454. Cr var.

#### **SWE 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 students' final semester. Cr 3.

## **SPECIAL SOCIAL WELFARE DEPARTMENT PROGRAMS**

### **1. Student Organization**

The Social Welfare Majors' Association seeks to facilitate communication between students and faculty; to ensure student involvement in department deliberations; to help provide for professional growth, working closely with NASW chapter; and to attempt to act on issues and problems in the community.

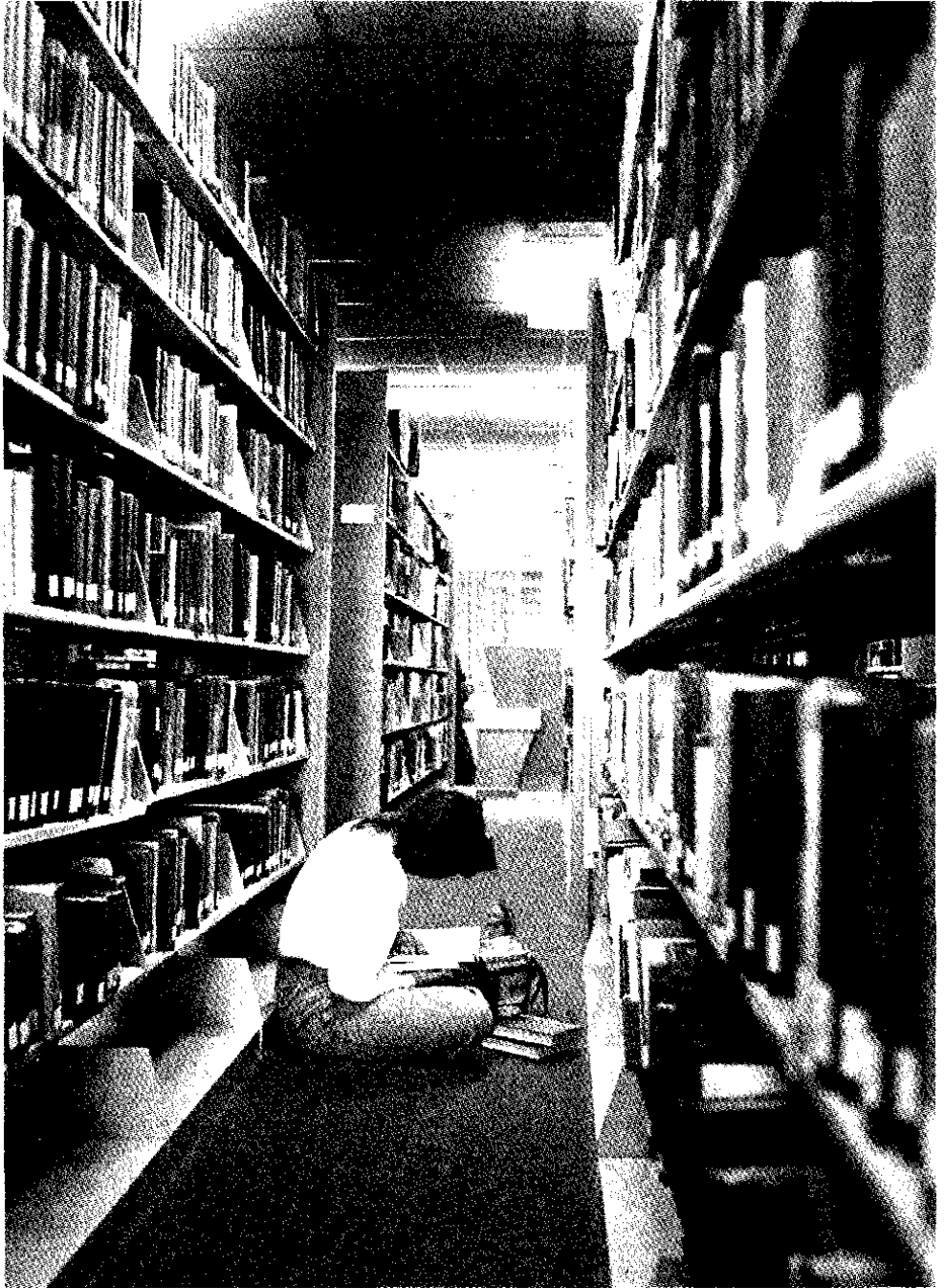
Student representatives attend faculty meetings and serve as full members on the department's curriculum and personnel committees.

### **2. Programs and Activities**

Social welfare students and faculty are involved in a great many community-service and social-action projects. These are an integral part of our attempts to offer learning experiences which simultaneously contribute to the development of the students as well as service to the community.

A special project operated by students under the supervision of a faculty member is the High Street Resource Center. The Center provides information and referral services as well as crisis intervention and short term counseling for people in the Greater Portland area. Students have the opportunity to pursue innovative and creative projects at the Center.

A large number of social and community agencies in the Greater Portland area as well as in other towns and cities of southern Maine have been most generous in their cooperation with the department in making available field instruction resources including supervision for students of the department.



# SOCIOLOGY

Chairman of Sociology Department: Peter M. Lehman, 120 Bedford Street, Portland.

Professors Giguere, Lacognata, Monsen; Associate Professors Anspach, Fullam, Grzelkowski, Lehman

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 fifteen thousand 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.

Students majoring in sociology at USM choose among three areas of concentrations offered by the department. These are GENERAL SOCIOLOGY, CRIME & JUSTICE, and SOCIAL POLICY. Requirements for each concentration are listed below.

In addition to the major, the department also offers a 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, Business, and the College of Education, and non-social science disciplines in the College of Arts and Sciences.

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 University's General Education Requirements.

Junior and senior sociology majors who have completed 10 hours of sociology credits and who are in the upper 35 per cent of their class are eligible for nomination to Alpha Kappa Delta, the national sociology scholarship and honor society.

## MAJOR REQUIREMENTS IN SOCIOLOGY

All students must complete 39 hours of course work in sociology, and must also satisfy a cognate requirement consisting of 6 hours above the introductory level in a related discipline. All concentrations share a common core of 18 hours of required course work, consisting of the following:

### Common Requirements

	<b>Credit Hours</b>
SOC 100 Introduction to Sociology.....	3
or	
SOC 150 Social Issues .....	3
SOC 205 Methods of Social Research .....	4
SOC 300 Sociological Theory .....	4
SOC 307 Statistical Methods for Social Research .....	4
One seminar from those numbered	
SOC 400 — SOC 405 .....	3

Requirements for the remainder of the major are determined by the area of concentration elected by the student. Choices are as follows:

### General Sociology Concentration

In addition to core courses, students must take at least one course from each of the following areas, plus three sociology electives.

	<b>Credit Hours</b>
SOC 310 — SOC 319 Social Processes .....	3
SOC 330 — SOC 339 Social Institutions .....	3
SOC 350 — SOC 369 Units of Social Life.....	3
SOC 370 — SOC 379 Social Problems.....	3

Students in general sociology may satisfy their cognate requirement with any six hours above the introductory level in any of the following areas:

Anthropology	Mathematics
Biology	Philosophy
Criminal Justice	Political Science
Economics	Psychology
Geography	Social Welfare
History	Computer Science

### Crime and Justice Concentration

In addition to core courses, students concentrating in crime and delinquency must take the following:

	<b>Credit Hours</b>
SOC 215 — Criminology.....	3
SOC 375 — Deviance .....	3
SOC 335 — Penology or SOC 337, Juvenile Justice .....	3
SOC 356 — Social Organization or SOC 357, Bureaucracy .....	3
SOC 314 — Social Control or SOC 336, Sociology of Law.....	3
SOC 338 — Criminal Law or SOC 317, Comparative Justice Systems.....	3

Three (3) hours of SOC electives.

Students in crime and justice satisfy their cognate requirement by taking *one* of the following clusters:

- a. Six (6) hours above the introductory level in social welfare to include *one* of the following: SWE 350, SWE 351
- b. Six (6) hours above the introductory level in political science, to include *one* of the following: POL 210, POL 233.

### REQUIREMENTS FOR A MINOR IN SOCIOLOGY

The minor in sociology consists of 18 to 20 credit hours. From 10 to 11 credit hours are required; the remainder are electives.

<b>Required Courses</b>	<b>Credit Hours</b>
SOC 100 Introduction to Sociology .....	3
or	
SOC 150 Social Issues .....	3
SOC 205 Methods of Social Research .....	4
SOC 300 Sociological Theory .....	4
or	
SOC 356 Social Organization .....	3

#### 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: Professor Fullam is currently acting as advisor to students minoring in sociology. To ensure that the experience be as fruitful as possible, students contemplating a minor are urged to contact him at their earliest convenience.

### COURSE DESCRIPTIONS

#### SOC 100 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. Cr 3.

#### SOC 170 Social Issues

Introduces students to the discipline through the application of a sociological frame of reference to elected contemporary issues. Emphasis is placed on guiding the student toward a general understanding

of why and how problems develop, how particular social groups are affected by them, and what is involved in dealing with them. Specific problems considered vary from term to term, and from section to section. Descriptions of current topics are available in the Sociology Department office. Students should consult these descriptions before registering for the course. The course may be taken only once for credit, but may be taken in addition to SOC 100.

Cr 3.

## Tools of the Discipline

### **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. Prerequisites: SOC 100, SOC 170, or POL 102. (This course also listed as POL 205.) Cr 4.

### **SOC 300 Sociological Theory**

Critical evaluation of selected classical and contemporary models of the social world. Includes consideration of the content of theories and theory groups and the socio-cultural settings within which they developed. Prerequisite: SOC 100 or SOC 170 and two other SOC courses. Cr 4.

### **SOC 307 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. Prerequisites: SOC 100, SOC 170, or POL 102. (This course also listed as POL 307.) 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 100 or SOC 170. Cr 3.

### **SOC 312 Social Stratification**

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 100 or SOC 170. Cr 3.

### **SOC 314 Social Control**

Examination and comparison of major societal control mechanisms. Emphasis on institutions of social control and their role in establishing and maintaining social order. Prerequisite: SOC 100 or SOC 170. Cr 3.

### **SOC 315 Personality and Social Systems**

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 100 or SOC 170. Cr 3.

### **SOC 316 Sex Roles**

An examination of sex roles in a socio-political and cultural context focusing on the sexual division of labor in American society. Prerequisite: SOC 100 or SOC 170. 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 100 or SOC 170.

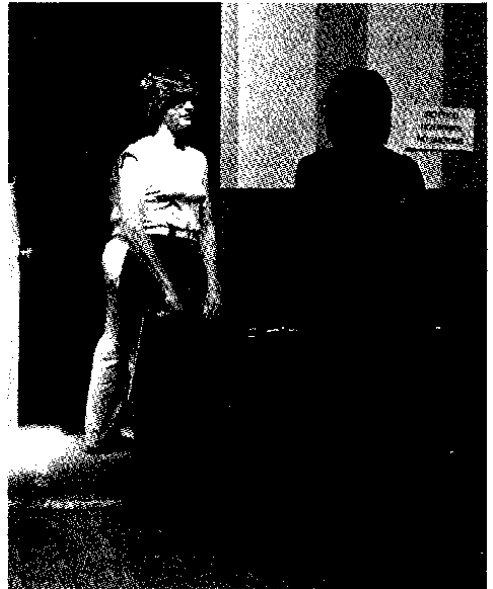
Cr 3.

### **SOC 331 Sociology of Education**

Analysis of four major aspects of the social institution of education: analyses of the bureaucratic nature of educational institutions—especially traditional and changing functions; college student profile shifts with particular emphasis upon adult learners; the new technologies in higher education—especially the micro-electronic revolution; and emerging social values and educational systems by the 21st century. Prerequisites: SOC 100 or SOC 170. 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 100 or SOC 170. Cr 3.



### **SOC 333 Sociology of Medicine**

Analysis of the relationship between sociocultural factors and the occurrence of disease and the social systems which are developed in the treatment and prevention thereof. Prerequisite: SOC 100 or SOC 170. Cr 3.

### **SOC 334 Sociology of Religion**

Religion as a social institution. Attention is given to the social correlates of religion and the functions of religion in society. Prerequisite: SOC 100 or SOC 170. Cr 3.

### **SOC 335 Penology and Corrections**

The course will focus on the social and political problems of dealing with offenders using an examination and analysis of the interrelations between theories of punishment and their application in corrections. Prerequisite: SOC 100 or SOC 170, 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 100, SOC 170, SOC 215, or permission of instructor. Cr 3.

**SOC 337 Juvenile Justice**

Examination and analysis of the philosophies, processing, and treatment of juvenile offenders with an emphasis on historical and comparative materials. Prerequisite: SOC 100, SOC 170, 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 100 or SOC 170. Cr 3.

**SOC 352 Population**

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. Students are encouraged to explore their participation as population actors, making decisions which affect fertility, mortality and migration. And being in turn affected by these population variables. Cr 3.

**SOC 355 Social Structure and Politics**

The sociological analysis of politics with a cross-national emphasis, including the social basis of mass political behavior. Conceptual focus will be around consensus and conflict, bureaucratization and the institutionalization of interest groups, social movements, and political parties. Prerequisite: SOC 100 or SOC 170. Cr 3.

**SOC 356 Social Organization**

An examination of selected institutions in modern society; analysis of social roles, processes, and structures within typical organized groups, such as industrial, military, religious, and fraternal organizations; discussion of bureaucracy, decision-making, social conflict; the implications of cultural and technological change. Prerequisite: SOC 100 or SOC 170. 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 100 or SOC 170. 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. Prerequisite: SOC 100 or SOC 170. Cr 3.

**Social Problems****SOC 215 Criminology**

An analytic survey of theoretical orientations which contribute to a sociological understanding of the interrelationships between crime, law and punishment; emphasis given to analysis of fundamental conflicts between law and social order as manifested in the organization and operation of the American criminal justice system. This course may be credited toward the social problems area requirement. Prerequisite: SOC 100 or SOC 170. Cr 3.

**SOC 371 Sociology of Minority Groups**

Considers the factors which produce and maintain structural 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 100 or SOC 170. Cr 3.

**SOC 373 The Adult Years**

Problems of age stratification and of role transitions for the years between adolescence and old age will be addressed within a life course perspective. This perspective includes: (a) the life span or growing older elements; (b) the social timetable of the life course (e.g., entry into marriage, etc.) (c) historical time (i.e., birth year as an index of historical time). Prerequisite: SOC 100 or SOC 170. Cr 3.

**SOC 374 Sociology of 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 100 or SOC 170. Cr 3.

**SOC 375 Sociological Perspectives in Deviance**

The origin and nature of socially disapproved behavior. Analysis of societal interpretations of and responses to the deviant. Prerequisite: SOC 100 or SOC 170. Cr 3.

**SOC 376 Society and Social Policy**

This course has three objectives: to familiarize students with the policy implications of various sociological theories; to introduce the political and ideological underpinnings of differing approaches to social policy; and to apply these ideas in the analysis of specific social policies. Prerequisite: SOC 100 or SOC 170. Cr 3.

**Advanced Seminars****SOC 400 Seminar in Sociology of Sociology**

Focusing on synthesis, the seminar is meant to provide the sociology major with an overall view of the discipline and its perspective as well as an opportunity to consider current issues and the future of sociology. Prerequisite: senior standing in sociology. Cr 3.

**SOC 401 Seminar in Sociological Classics**

An in-depth study of selected seminal works in sociology. Aimed at the identification of major concepts and propositions. Prerequisites: SOC 300 or permission of instructor. Cr 3.

**SOC 402 Seminar in Contemporary Marxism**

A survey of issues and debates within Marxist political, social and economic theory. Specific topics examined include: law and the modern state; power and political process; the crisis of hegemony in late capitalism. Prerequisites: SOC 300 or permission of instructor. Cr 3.

**SOC 403 Seminar in Social Thought**

Analyses of contemporary social issues, ideas, and attitudes characterizing American society. Independent library research projects to be emphasized in concert with seminar dialogues. Prerequisites: juniors and seniors only and permission of instructor. Cr 3.

**SOC 404 Seminar in Theory Construction**

The vocabulary and logic of theory construction;

from assumptions and isolated propositions to systematized theory. The course aims at enabling the student to understand the utility of theory and its relevance for empirical research. Prerequisite: senior standing in sociology. Cr 3.

**SOC 405 Research Seminar**

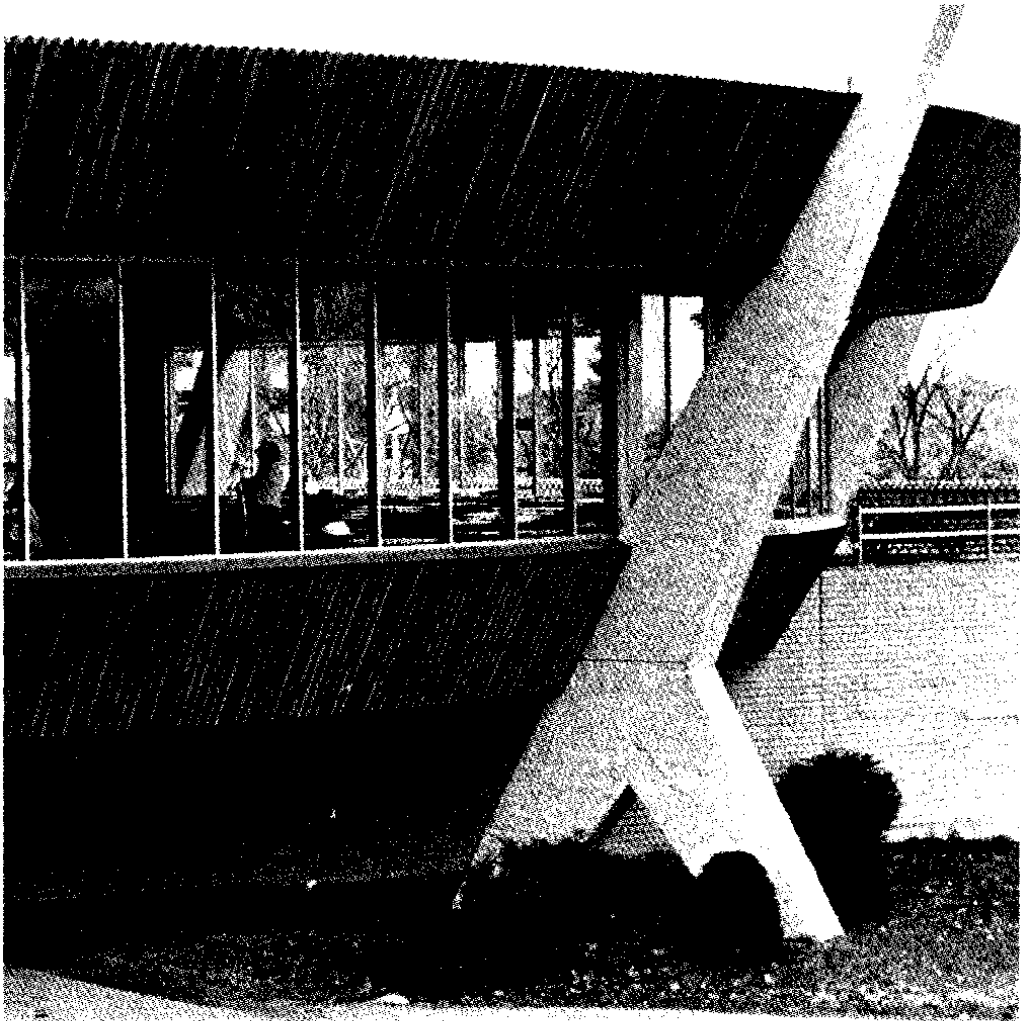
Focus on the actual conduct of sociological research. Students will formulate a research problem, develop a research design, collect and analyze data and report their findings. Prerequisites: SOC 205, SOC 307 and senior standing. Cr 3.

**SOC 390 Individualized Instruction I**

Independent reading and/or research for juniors and seniors. Apply to department chairman. 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 chairman. Prerequisite: SOC 397. Cr var.



# THEATRE

Chairman of Theatre Department: Walter R. Stump, Russell Hall, Gorham.

Professor Stump; Associate Professor Duclos, Power, Rootes, Steele; Assistant Professor Kading.

## B.A. DEGREE IN THEATRE

Incoming freshmen may declare their intent to major. For those declaring their intent to become a theatre major, the following courses are required:

### Preparation for the Theatre Major

ENG 101 College Writing (May be waived through a successful score on the standard English exam.)

THE	120	Fundamentals of Acting: Movement & Improvisation
THE	121	Fundamentals of Acting: Scene Work
THE	101	Introduction to Drama
THE	290	Oral Interpretation
THE	135	Stage Craft

Students who have declared an intent to become majors are then identified as candidates for matriculation in the Department of Theatre. They may request status as a major when the above requirements have been completed.

When the request for major status is submitted, the department will review the student's past record in terms of academic and practical potential for success. Notification of admittance or rejection will be issued. The student may appeal any rejection if desired.

A total of 30 units in theatre, not to include those hours selected for major preparation, is required for graduation.

The following units are required:

THE	136	Stagecraft II
THE	220	Acting III: Voice for the Actor
THE	221	Advanced Scene Work or
THE	320	Acting V: Contemporary Acting Methods
THE	330	Stage Lighting (or THE 331 Scene Design)
THE	340	History of the Theatre I (or THE 341 History of the Theatre II)
THE	210	Play Analysis
THE	122	Contemporary Dance I
THE	223	Mime

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	460	American Drama

In addition to the above, a total of nine units must be selected from the following allied areas, unless otherwise approved by the department:

### ART

ARTX	102	Film as Image and Idea (3)
ARTX	141	Design I (3)
ARTX	151	Drawing I (3)

### DANCE

*THE	222	Contemporary Dance II (3)
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\*May not be taken to fulfill General Education Requirements.

### ENGLISH

ENG	242	Shakespeare I (3)
ENG	243	Shakespeare II (3)



ENG	246	British Drama to 1642 (3)
ENG	266	Restoration Drama (3)
CPEN	372	Greek Epic, Tragedy and Comedy (3)
ENG	352	Medieval Drama (3)

### FOREIGN LANGUAGES & CLASSICS

CLS	252	The Tragic Hero in Ancient Literature (3)
FRE	264	Avant-Garde Theatre in France (3)
FRE	303	French Theatre in the 20th Century (3)

### MUSIC

MUS	401	Gorham Chorale (0.5)
MUS	403	A Cappella Choir (0.5)
MUS	405	The Chamber Singers (0.5)

### EDUCATION

EDU	499	Photography for Classroom Use (3)
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### INDUSTRIAL ARTS

IA	210	Electronics Technology
IA	241	Graphic Arts Technology
IA	444	Photographic Reproduction

Since practical experience in all phases of production is absolutely essential to the theatre student, all majors are required to participate in at least five productions while matriculating at USM. In fulfilling this requirement, students will be allowed to attempt no more than two consecutive production areas, such as costuming, acting, etc., before attempting another. If, for example, a student acts in two consecutive USM productions, that student must then attempt some aspect of technical theatre. Conversely, if a student concentrates in the area of technical theatre, that student must then attempt an acting role.

The department will meet at least once a semester to review each major's progress and to call to the attention of the student any departmental concern.

It is also possible to minor in theatre. 18 units required. The courses required are 120, 121, 101, 290, 135 and two courses from the following: 220, 221, 320, 330, 340, 210, 361, 362, 363, 460.

## COURSE DESCRIPTIONS

### THE 101 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 120 Acting I — Fundamentals of Acting: Movement and Improvisation

This is a practical course designed to introduce the student to basic procedures necessary to experience the creative process in acting. The course is designed to cultivate the student's sense of both physical and mental self by increasing his imagination, creative, and technical abilities. Course utilizes movement, sensitivity, mime, and improvisational exercises. (Taught spring and fall semesters.) Cr 3.

### THE 121 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. (Taught spring and fall semesters.) Cr 3.

### THE 122 Contemporary Dance I

Contemporary Dance I is designed for beginning dancers with no formal dance training or no dance

training in recent years. This class introduces basic contemporary dance skills and vocabulary. The class is divided equally into two areas of study. Physical and technical development are learned through strengthening and stretching exercises and body isolations. Proper body alignment is stressed for the most energy efficient and injury-free movement both in and out of class. Dance phrases are designed to teach rhythmic and locomotor skills. Equal time will be devoted to studying choreographic techniques wherein students will learn how dances are created by creating their own. The Art of Making Dances by Doris Humphrey, plus selected writings by more contemporary choreographers will be used in the class. The class will be expected to attend several local dance performances during the semester. Prerequisite: THE 120 or THE 121 or permission of the instructor. Cr 3.

### THE 123 Contemporary Dance II

A continuation of THE 122. Cr 2.

### 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.

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 135 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 137 Stagecraft Lab required.)

Cr 3.

**THE 136 Stagecraft II**

A lecture/discussion/lab course in basic theatrical drafting/graphic practices relating to theatrical construction and design techniques. The primary emphasis of the course will be the execution of various types of theatrical design and construction, painting and mounting of a major University theatre production. (Concurrent enrollment in THE 137 Stagecraft Lab required.) Prerequisite: THE 135 or instructor consent.

Cr 3.

**THE 137 Stagecraft Lab**

A lab course allowing practical application of theory discussed in THE 135, 136. (Concurrent enrollment in THE 135 or 136 required.)

Cr 1.

**THE 138 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; the relationship of colored light and make-up; the basic approach to theatrical make-up design. Primary emphasis of the course will be 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 170 Public Speaking**

An introductory course in the fundamentals of public discourse. Primarily a lecture-performance course, students will learn the basics of informative, persuasive, and entertaining speaking, as well as the processes of problem-solving and informative discussion. Emphasis is upon conception, analysis, structure, and modes of proof.

Cr 3.

**THE 210 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 120, 121. (Fall semester only.)

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 121. (Spring semester only.)

Cr 3.

**THE 222 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 122 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 of study. In addition, students gain an understanding of the historical perspective of classical Mime and its influence on contemporary approaches to the art form. Prerequisites: Fundamentals of Acting (THE 120 or THE 121) or permission of the instructor. Fall semester only.

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 production including such topics as play analysis and selection as influenced by cast and faculty options, rehearsal schedules, blocking action and related stage business. This course is particularly valuable for the classroom teacher. Practicum required. Prerequisites: 101, 120, 121.

Cr 3.

**THE 240 Costuming I**

The course will consist of an introduction to costuming; including basic design, basic construction and an introduction to the materials used in millinery,

wig-making and special costume problems (armor, footwear, etc.). The major emphasis will focus on design and construction. Additional hours of production work will be required providing a practical application of classroom theory. (Concurrent enrollment in THE 137 is required.) Cr 3.

#### **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 290 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. Prerequisites: THE 120, 121, 220, 221. (Fall semester only.) 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 and characterization, and on audition work. Prerequisites: THE 120, 121, 220, 221 or permission of the instructor. (Spring semester only.) 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 135, THE 136. Cr 3.

#### **THE 331 Scene Design**

Lecture and practicum in stage scenic design. Emphasis on the visual art and drafting of designs. Prerequisites: THE 135 and THE 136. 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 101, 120, 121, 234, 135, 221 and 320. 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. Prerequisites: THE 101 and THE 361 or 362 or 363. 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. Prerequisite: THE 101. 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. Prerequisite: THE 101. 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. Prerequisites: THE 101, 234. 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. Prerequisite: THE 101. 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, Chayefsky, and others which exemplify the literary, social, political, and philosophical aspects of the age will be studied. Prerequisite: THE 101. 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. Focus is upon such playwrights as Beckett, Genet, Pinter, Albee, LeRoi Jones, and representative plays from "Off-Broadway" Theatre. Prerequisite: THE 101. Cr 3.

**THE 390 Advanced Oral Interpretation**

A continuation of THE 290.

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.

Cr 3-15.

**THE 399 Independent Study**

The student will submit a written proposal defining the scope and the limitations of his study. He must submit his project for independent study to the faculty one month prior to the completion of the semester preceding his study. This deadline should be published at least one month prior to the student's deadline. The faculty must approve and determine the credits given to the independent study. If the faculty does not meet before the semester is concluded, the student will not be eligible to do the study until the coming semester. The student will choose a supervisor. It will be the duty of this in-

structor to closely supervise, advise, and recommend to the student and assure all faculty that each will receive a copy of the proposal before the meeting at which the student's proposal will be presented to the entire faculty. At the completion of the independent study the student will take an oral examination conducted by the entire faculty and chaired by his advisor (Review Board). At the completion of the oral examination the faculty will advise the student's advisor as to their determination of a grade. The advisor will then determine the grade and submit the grade to the Registrar's Office. A student, generally, should not embark on a study until he has taken and completed all of the available course work that is necessary to do his study in depth. Each theatre student is entitled to take six units in either Independent Study or Theatre Projects, or a combination of both not to exceed six units unless the specific proposal is unanimously approved by the theatre faculty. Cr 3.

**THE 433 Project I**

Investigation of special topics, or execution of special projects which 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: juniors and seniors only; precise definition of project and unanimous permission of committee. Students must obtain rules for this course from the department chairman. Credit hours arranged.

**THE 460 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 as the center. Others: Maxwell Anderson, Robert Sherwood, Tennessee Williams, Arthur Miller, and Edward Albee. Cr 3.



# College of Education

## DEAN

Loren W. Downey  
119 Bailey Hall, Gorham

## Assistant Dean

Charles M. Lyons

### Chairman, Department of Industrial Education and Technology

Professor Arthur Berry

**Director of Graduate Studies**  
Associate Professor David Silvernail

### Chairman, Department of Professional Education

Associate Professor John Deady

### Director, Center for Professional Development

Assistant Professor A. Nye Bemis

### Chairman, Department of Human Resource Development

Associate Professor John Sutton, Jr.

**Director, Office of Clinical Experiences**  
Associate Professor Melissa Costello

## FACULTY

### Department of Professional Education

Professors Cobb, R. Costello, Downey, Hodgdon, Milbury, Neuberger, O'Donnell, Philippi; Associate Professors Allen, Amoroso, Bouchard, Chronister, Colucci, M. Costello, Davis, Deady, Gorman, Lyons, Morrill, Silvernail, Smith; Assistant Professor Cohen; Instructors Drew, Field, Turlo.

### Department of Human Resource Development

Professors Southworth, Sullivan; Associate Professors Folsom, Meyer, D. Moore, Sutton, Williams; Assistant Professors Campbell, Lapointe, Martin, Willard; Instructors Henry, McCullough, Sandberg.

### Department of Industrial Education and Technology

Professor Berry, Associate Professors Carter, Faulkner, W. Moore, Nannay, Zaner; Assistant Professors Anderson, Kirk, Taylor.

## ORGANIZATION

The College of Education is organized in three departments. The Department of Professional Education offers undergraduate degrees in Early Childhood Education and Elementary Education, as well as graduate degrees in Reading, Professional Teacher, and Educational Administration. The Department of Human Resource Development offers an undergraduate Early Childhood Intern option, an associate of science degree and a bachelor of science degree in Therapeutic Recreation, and graduate degrees in Counselor Education and Adult Education. The Department of Industrial Education and Technology offers undergraduate degrees in Industrial Arts Education, Vocational/Occupational Education, Industrial Technology, and Vocational Technology. Additionally, undergraduate degree programs are offered with the College of Arts & Sciences in Art Education, Music Education, and Secondary Mathematics education.

The three departments are supported by the Office for Clinical Experiences, which coordinates field experiences such as practicums, 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 housing commercial educational 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 cur-

riculum reviews by local schools through consultation and material provision; assistance in planning and implementation of field-based non-credit, recertification credit and in-service graduate credit experiences; and assistance in securing other USM, regional and state-wide staff development resources.

The Office of Graduate Studies serves as clearinghouse for graduate programs in the College of Education. Information about these programs is available from the Office in 408 Bailey Hall and in the USM Graduate Catalog.

## UNDERGRADUATE PROGRAMS

Undergraduate programs are offered in the fields of Early Childhood Education, (including a competency based intern option), Elementary Education, Secondary Mathematics Education, Art Education, Music Education, Therapeutic Recreation, Industrial Arts Education and Vocational Occupational Education, Industrial Technology, and Vocational Technology.

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. The secondary school preparation must include successful completion of the following courses of study:

English	4 Units
*Mathematics	3 Units (2 algebra, 1 geometry)
Sciences	2 Lab Units
History/Social Studies	2 Units

\*Mathematics majors in Secondary Education, 4 Units.

A detailed description of the admissions procedure is described in the beginning of this catalog.

## GENERAL INFORMATION

Students matriculating for a degree in the College of Education are all considered to be Education Majors. In each case, the student is developing a teaching or technical specialty in the form of a concentration or minors. Education majors will be assigned an adviser 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 which describes program requirements, and confer at least once each semester with their adviser for approval of their programs.

All baccalaureate degree programs in the College of Education require a minimum of 120 semester hours.

### Grade Point Average

Students must earn an accumulative grade point average of 2.0 for their complete baccalaureate program.

Students must achieve a grade point average of 2.5 in their selected majors and/or minors. No more than one D will count toward fulfillment of the major and minor programs.

Students majoring in the Early Childhood, Elementary Education, Industrial Arts, and Vocational Education programs must achieve a grade point average of at least 2.5 in their professional educational requirements (EDU courses) prior to student teaching. No grades of D will count toward the fulfillment of the professional requirements.

### Pass-Fail Option

An undergraduate in the College of Education may register for a total of 18 hours of pass-fail credits in addition to electing pass-fail credits for Student Teaching and the related seminar. Required courses in the Core Curriculum and the student's major may not be taken pass-fail. Only two elective courses in a concentration and only one elective course in a minor may 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 chairman is required. No university credit may be earned for courses described in catalog through independent study.

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 G.P.A. 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/her advisor, course instructor and the Director of Graduate Studies.
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 Programs**

A teaching internship is a cooperative teacher education program for Early Childhood and Elementary Education 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 courses on-site taught by University and public school personnel. Internship programs generally are designed as two-semester programs where the interns may earn up to 36-academic credits.

Exchange programs with two colleges in England are also available. Students may elect to complete a semester of study, including student teaching, through this option.

### **Physical Education Requirements for all Education Majors**

Students in the College of Education are required to complete 2 credit hours of Physical Education which may not be applied toward the General Education Requirements. A student may be excused from this requirement by the Dean of the College of Education on the basis of one or more of the following exemption criteria:

1. A student entitled to veteran's benefits.
2. A student who will be 30 years of age or over upon graduating.
3. A student who has a written medical excuse from the University Health Service.

The Dean of the College may waive the Physical Education requirements for other reasons reflecting unusual circumstances.

### **Maine Children's Resource Center**

A resource center of books, pamphlets, slides, cassettes, film strips, records, films, projectors, tape recorders, videotape equipment, etc., is maintained in the office of the Maine Children's Resource Center on the Gorham campus.

An annotated bibliography is available to interns. Requested materials are mailed to interns. Interns are encouraged to visit the resource center whenever possible. Interns may be videotaped in their classrooms and use these tapes for self-assessment. Videotapes are also used in workshops to illustrate teacher competence and by University advisors as a teaching tool.

## **UNDERGRADUATE PROGRAM DESCRIPTIONS**

### **Early Childhood Education Program**

The Early Childhood Education curriculum qualifies graduates to teach grades kindergarten through eight with emphasis on grades kindergarten through three.

### **Elementary Education Program**

The Elementary Education curriculum qualifies graduates to teach grades kindergarten through eight with emphasis on grades four through six.

### **Early Childhood-Intern Option** (competency-based)

The Early Childhood Intern curriculum is specifically designed for the student (intern) who is employed in a preschool classroom and at the same time studying for a baccalaureate degree. Since each intern is working full-time, it is estimated that it will take six years to complete the program. The curriculum qualifies the graduate to teach preschool through grade eight. Interns study how children learn and how adults in the home, school and community can foster this learning. Special emphasis is placed on the child from infancy to eight years of age.

Inquiries about this program may be directed to the Maine Children's Resource Center located on the Gorham campus of the University.

## **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.

## **Art Education Program**

Graduates of the program are qualified to teach or supervise art in all grades of the public schools. Information about the Art Education curriculum is provided under the Art Department section of this catalog in the College of Arts and Sciences.

## **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. All information about the Music Education curriculum is provided under the Music Department heading in the section of this catalog dealing with the College of Arts and Sciences.

## **Therapeutic Recreation**

**Associate degree program:** Therapeutic Recreation graduates are prepared for employment as activity leaders or technicians working with the handicapped and the elderly. These graduates find jobs in nursing and boarding homes, hospitals, rehabilitation schools for the handicapped, centers, camps, municipal parks and recreation departments, and appropriate human service agencies. A detailed description of this program follows within this section.

**Bachelor of science program:** The B.S. in Therapeutic Recreation prepares students to be administrators, supervisors and program designers who work in a variety of human service settings dealing with the handicapped and the elderly. A complete description of degree requirements is included in the following pages.

## **Industrial Arts Education**

The Industrial Arts curriculum prepares teachers 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. A detailed description of this program is provided on the following pages of this section.

## **Vocational-Technical Education Program**

This is a part-time evening and summer program leading to a B.S. degree with a major in Vocational/Occupational Education, Vocational Technology or in Industrial Technology. A detailed description of this program is provided on the following pages of this section.

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 USM Graduate Catalog for information.

# **DEPARTMENT OF PROFESSIONAL EDUCATION**

## **EARLY CHILDHOOD AND ELEMENTARY EDUCATION PROGRAM DESCRIPTIONS**

### **Early Childhood Education Program**

The Early Childhood Education curriculum qualifies graduates to teach in grades K-8 with an emphasis on grades K-3.

### **Elementary Education**

The Elementary Education curriculum qualifies graduates to teach grades K-8 with emphasis on grades 4-6.

The Early Childhood and Elementary Education programs are currently being rewritten by the Department of Professional Education faculty. Students entering the program in the fall of 1982 will be required to complete the new programs of study in order to qualify for the B.S. degree in Early Childhood or Elementary Education.



The new programs will tentatively include:

A. The University Core Curriculum	41 semester hours
B. Additional courses from the College of Arts and Sciences specified by the College of Education faculty and selected by the student.	33 credits
C. Professional Sequence	47-50 credits
1. An introduction to Education— College of Education. Four-year program acquainting students with teaching as a profession.	
2. Theoretical Foundations	
a. Human Growth & Development	
b. Learning theory—cognitive, affective and motor-sensory domains.	
3. Theory applied to classroom practice—curriculum, methodology and classroom management.	
4. Internship—Practice teaching in an internship setting.	
5. Senior Seminar—Historical, social, philosophical and legal traditions.	
D. Electives	9-12 credits
	Total 120 credits

EDU 100—Exploring Teaching As a Profession, will be taken by all students entering the program in the fall of 1982. This three credit course consists of a coordinated lecture/seminar and field-based experience in a school setting.

1. Introduces students to the College of Education, its faculty and program
2. Brings students of education into contact with children and practicing professionals through a planned set of field experiences in a school setting
3. Engages students in an examination of the roles played by teachers in schools through on-campus team-taught lectures
4. Enables students to examine and evaluate their field-based experience, and the content of the lectures in on-campus small group seminars, and
5. Provides a setting which enables faculty to more effectively screen and advise students regarding teaching as a career choice.

Students entering the College of Education in September 1982 will be advised of the required sequences and experiences under A-D above. Continuing students will follow the program published in the catalog on the date of admission. See advisor for details.

A component of a teacher preparation program for Elementary Education majors is the development of a teaching specialty. The teaching specialty may take one of two forms: 1) a concentration of ten courses or 30 semester hours in any one of the disciplines outlined below in the left column, or 2) two minors of six courses each or 18 semester hours each in any one of the areas outlined below in the right column.

**Concentrations**

English  
History  
Language Communications  
Mathematics  
Science  
Social Science

**Minors**

Economics  
English  
French  
Geography  
German  
History  
Language Communications  
Learning Disabilities  
Mathematics  
Music  
Physical Education Leadership  
Science  
Social Science  
Spanish

Each of these concentrations and minors is described in detail on the following pages of this section.

## DESCRIPTION OF CONCENTRATIONS AND MINORS FOR EARLY CHILDHOOD AND ELEMENTARY EDUCATION MAJORS

### Economics Minor

An academic minor in Economics may be fulfilled by completing the following courses.

#### Required Courses:

ECON	101	Principles of Economics I
ECON	102	Principles of Economics II
ECON	350	Comparative Economic Systems
ECED	300	Economic Concepts and Resource Materials (currently offered as independent study)

#### Elective Courses:

9 hours of electives from any of the remaining Economics courses.

(NOTE: This is a 21-hour minor.)

### English Concentration and Minor

An English concentration of 30 credits or a minor of 18 credits consists of courses elected from the English course offerings.

### French Minor

A French minor consists of 12 credits above the FRE 200 level. (18 credits including Intermediate French I and II.)

#### Required Courses:

FRE	201 or 202	French Composition I, II
FRE	203 or 204	French Conversation I, II
FRE	231	Introduction to French Literature I

#### Elective Courses:

FRE	205	Phonetics
FRE	232	Introduction to French Literature II
FRE	401 or 402	Advanced French Grammar I, II

Students should also take the professional course FLED 301 - The Teaching of Foreign Languages.

### Geography Minor

A Geography minor consists of the following sequence of courses:

#### Required Courses:

GEOG	101	Principles of Geography
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At least one course in regional geography from:

GEOG	201	Cultural Geography
GEOG	310	Geography of Asia
GEOG	311	Geography of North America

#### Elective Courses:

12 hours of electives from any of the remaining Geography courses.

### German Minor

A foreign language minor in German may be fulfilled by completing the following courses:

#### Required Courses:

GMN	131 and 132	Intermediate German I & II
GMN	201 and 202	Composition/Conversation I & II
GMN	231 and 232	Introduction to Literature I & II

Students may register for optional language laboratory practice in GMN 101, 102, 131, and 132. Students should also take the professional education course FLED 301 - The Teaching of Foreign Languages.

### History Concentration and Minor

A concentration in History of 30 credits or a minor of 18 credits consists of courses elected from the History course offerings.

## Language Communications Concentration and Minor

### Options

#### A. 30-hour concentration

(1) One course from each of the following sections.

(2) Fifteen (15) hours of electives from any of the five sections that may include six hours of independent study.

#### B. 18-hour minor

(1) One course from the following Sections 1, 3, and 5.

(2) Nine (9) hours of electives from any of the sections that may include six hours of independent study.

### Section No. 1

EDU	302	Primary Reading
EDU	303	Developmental Reading
EDU	306	Secondary Reading
EDU	321	Atypical Reading Patterns
EDU	322	Remedial Reading

### Section No. 2

COM	102	Introduction to Communication
COM	171	Interpersonal Communication
COM	250	Small Group Communication
COM	272	Persuasion
COM	290	Organizational Communication
COM	370	Inter-Cultural Communication

### Section No. 3

EDU	312	Teaching of Language Arts in the Elementary School
ENG	381	Modern Grammar
ENG	382	Introduction to Linguistics
EDU	368	Introduction to Communication Disorders

### Section No. 4

ARTS	141	Design I
ARTS	151	Drawing I
EDU	310	Preparation of Classroom Materials
MUED	200	Music for the Classroom Teacher
MUS	211	Classroom Piano

### Section No. 5

EDPY	331	Group Dynamics
THE	120	Acting I: Fundamentals of Acting
THE	170	Public Speaking
THE	220	Acting II: Voices for the Actor
THE	290	Oral Interpretation

## Learning Disabilities Minor

A Learning Disabilities minor is composed of the following courses and requires a minimum of 18 credit hours:

Required:	Credit Hours
EDU 316 Learning Disabilities .....	3
EDU 321 Atypical Reading or .....	3
EDU 322 Remedial Reading.....	3
EDU 363 Emotional Problems of Exceptional Children .....	3
<b>Electives:</b>	
EDUX 399 Methods and Materials for Teaching the Learning Disabled .....	3
EDU 366 Practicum in Learning Disabilities .....	3-6
EDU 368 Introduction to Communication Disorders .....	3
EDU 367 Psycholinguistics .....	3
EDU 346 Exceptionality and the Preschool Child .....	3
EDPE 308 Physical Education for Atypical Child .....	3
SWE 266 Concept of self and the Handicapped .....	3
PSY 101 General Psychology I.....	3
PSY 102 General Psychology II .....	3
PSY 343 Psychological Test Theory .....	3

Those students wishing to seek transcript analysis certification in Learning Disabilities are advised to choose courses only after consultation with the faculty in this area.

### Mathematics Concentration and Minor

A Mathematics concentration of 30 credits or a minor of 18 credits may be fulfilled by successfully completing the courses MS 131, MS 231, and MS 232.

The remaining credits necessary to complete a program may be selected from courses which have MS or CS code numbers of 120 or above.

### Music Education Minor

The minor in Music Education is designed to provide an opportunity for students who demonstrate interest and ability to continue music studies beyond the high school level and to equip them to successfully implement music programs in the classrooms. Entrance to this program by audition only.

The minor in Music Education is comprised of the following courses:

			<b>Credit Hours</b>
MUS	100	Music History and Appreciation .....	3
		Music History Elective .....	3
MUS	130-131	Theory I and II .....	6
MUS	132-133	Solfeggio I and II .....	2
MUED	322	Elementary Music Methods & Materials .....	3
		Ensembles .....	2
MUS	150-151	Applied Music .....	2

The minor in Music Education program requires a total of 21 hours.

### Physical Education Leadership Minor

The following required and elective courses comprise the 18-credit Physical Education Leadership minor.

<b>Required Courses:</b>			<b>Credit Hours</b>
PE	198	Foundations of Exercise Science .....	2
EDPE	298	Standard First Aid and Safety .....	2
or			
EDPE	389	Advanced First Aid and Emergency Care .....	3
EDPE	304	Methods and Materials for Teaching Physical Education .....	3
EDPE	310	Experiential Learning in Outdoor Education .....	3
EDPE	401	Practicum in Physical Education Leadership .....	3
Total			13-14

<b>Elective Courses:</b>			<b>Credit Hours</b>
PE	207	Gymnastics .....	1
EDPE	216	Analysis of Human Movement .....	3
EDPE	218	Games and Activities .....	1
EDPE	300	Camp Leadership .....	3
EDPE	306	Movement Education in the Elementary School .....	3
EDPE	308	Physical Education for the Atypical Child .....	3
EDPE	309	Rhythms and Motor Activities .....	3
EDPE	398	Independent Study in Physical Education .....	1-3

### Certificate Program in Athletic Coaching for Men and Women

This program is designed to prepare interested students in handling 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. Coverage is also given to the prevention and care of the most common injuries occurring in athletic programs.

A certificate of accomplishment will be presented to students completing the minimum fifteen-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)

<b>Required Courses</b>			<b>Credit Hours</b>
PE	203	Athletic Training (Care & Prevention of Athletic Injuries) .....	3
PE	302	Coaching Philosophy & Fundamentals .....	3

PE 314	Organization & Administration of Athletics.....	3
PE 391	Field Experience in Coaching.....	1-3
<b>Elective Courses:</b>		
PE 209	Officiating Basketball.....	2
PE 210	Officiating Field Hockey.....	2
PE 211	Officiating Soccer.....	2
PE 212	Officiating Baseball and/or Softball.....	2
PE 303	Coaching Basketball.....	2
PE 305	Coaching Track and Field.....	2
PE 311	Coaching Soccer.....	2-3
PE 312	Coaching Football.....	2
PE 315	Coaching Field Hockey.....	2
PE 316	Coaching Volleyball.....	1
PE 318	Coaching Gymnastics.....	2
PE 331	Coaching Golf.....	1
PE 332	Coaching Tennis.....	1
PE 334	Coaching Cross Country.....	2
PE 335	Coaching Baseball & Softball.....	2

## COURSE DESCRIPTIONS

### Program Related Courses in Physical Education

#### **PE 198 Foundations of Exercise Science**

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. Satisfies PE requirement. Cr 2.

#### **PE 201 Conditioning and Therapeutic Exercise**

Discussions in practical application of various theories of athletic conditioning and therapeutic exercise, i.e., progressive resistance, circuit training, isometrics, interval training, aerobics, calisthenics, etc. Also, analysis of body alignment and how functional problems can be corrected with reconditioning exercises. Cr 2.

#### **PE 202 Current Health Issues**

The aim of this course is to help students grow in scientific health knowledge, develop desirable health attitudes, improve health practices, and solve individual and group health problems. Cr 3.

#### **PE 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.

#### **PE 207 Gymnastics**

A basic course in tumbling and gymnastics including use of apparatus for men and women. Cr 1.

#### **PE 208 Folk and Square Dance**

Fundamental and traditional dance steps, folk and square dances, and cultural background of the folk dances of other nations will be covered. Open to beginners and beyond. Cr 1.

#### **PE 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.

#### **PE 210 Officiating Field Hockey**

Study and discussion of the rules of field hockey as well as practical experience in the techniques of of-

ficiating. Practical and written tests will be given. Opportunity to become a rated official. Cr 2.

#### **PE 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.

#### **PE 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.

#### **PE 215 Posture and Figure Control**

The course includes individual postural appraisal, corrective exercises, and recognition of postural deviations. Recommended for prospective teachers. Cr 1.

#### **PE 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.

#### **PE 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.

#### **PE 305 Coaching Track and Field, Philosophy and Methods**

Coaching experience on the field with analysis of the form and technique of the various events. Selection of candidates, training, conditioning, diet, organization and promotion of track will be covered. Cr 2.

#### **PE 311 Coaching Soccer, Philosophy and Methods**

Emphasis on the methods of teaching and coaching soccer. Offense and defense, player-coach relation-

ship, team selections, planning of practice sessions, and game situations will be areas of concentration. Cr 2 or 3.

**PE 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.

**PE 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.

**PE 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.

**PE 316 Coaching Volleyball, Philosophy and Methods**

Fundamentals of individual skills, team strategy, practice organization, and team play are emphasized. Cr 1.

**PE 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.

**PE 331 Coaching Golf, Philosophy and Methods**

Course content includes methods of team selection, fundamentals of golf, types of competition, and practical experience. Cr 1.

**PE 332 Coaching Tennis, Philosophy and Methods**

Course content includes skill development strategies, drills, conditioning principles, and team management. Cr 1.

**PE 334 Coaching Cross Country, Philosophy and Methods**

Course content includes the techniques of training and conditioning, the operation of meets, course layouts and running techniques. Cr 1.

**PE 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.

**PE 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. Prerequisite: PE 203, PE 302. Cr 1-3.

**EDPE 216 Analysis of Human Movement**

A study of major skeletal bones and muscle groups; posture appraisal, development, and correction; and application of the principles of mechanics to body movement. Cr 3.

**EDPE 218 Games and Activities**

An introductory course in non-competitive games for school age children. The course follows the growth of the New Games Foundation and has a practical teaching experience with school age children. Cr 1.

**EDPE 298 First Aid and Safety**

A multi-media approach to the utilization of techniques of first aid as prescribed by the American Red Cross. Various aspects of safety will be discussed. Successful completion of the course requirements will lead to Red Cross certification. Cr 2.

**EDPE 300 Camp Leadership**

A leadership course for the elementary school teacher to direct an outdoor education program. The course includes the skills, attitudes, and appreciations necessary for the intelligent use of the outdoors and outdoor pursuits. Many of these are often considered a part of physical education and recreation programs but they have significance in other subjects which cut across all areas of the school curriculum. Cr 3.

**EDPE 304 Methods and Materials for Teaching Physical Education**

A basic course for prospective teachers to acquaint them with the various areas of physical education. Topics include: philosophy and objectives of physical education; characteristics of children; the PE curriculum; class organization and lesson planning; teaching strategies and techniques; extra class programs and correlation with other subjects. Observation of and practical experience with children will be included. Cr 3.

**EDPE 306 Movement Education in the Elementary School**

A course is designed to help the prospective teacher plan instructional programs which will give children an opportunity to be creative and to participate in the planning. Activities based on movement skills-movement exploration are stressed. Children from grades one to six are part of the experience. Cr 3.

**EDPE 308 Physical Education for the Atypical Child**

This course is planned to help students understand adaptive physical education for the physically and mentally handicapped child. Emphasis will be placed on educable mentally retarded and learning disabled children. An investigation into the causes of mental retardation and learning disabilities is also included. Cr 3.

**EDPE 309 Rhythms and Motor Activities**

Preparation of classroom teachers with necessary knowledge to provide an understanding of sound mechanical principles that insure the proper application of force and the attainment of accuracy and balance through the learning of basic motor skills. Also to provide comprehensive dance experiences for students through the introduction to the meaning and areas of dance, teachers of techniques, skills, aids to teaching and the use of rhythm in accompaniment. Cr 3.

**EDPE 310 Experiential Learning in Outdoor Education**

**Ropes/Initiative Course Construction and Use**  
Participants can expect to gain first-hand knowledge

and experience through actual participation in all phases of initiative course construction and operation. Of primary importance will be the understanding one receives from the experience for constructing a similar course in his/her own educational program.

#### **Mountaineering**

Designed to gain knowledge in technical mountaineering and to improve capabilities in technical rock climbing. Cr 3.

#### **Orienteering**

Designed to gain knowledge in expedition planning and route finding. Cr 3.

#### **EDPE 389 Advanced First Aid and Emergency Care**

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 Emergency Care and CPR certification. Cr 3.

#### **EDPE 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 PE Leadership Minor. Prerequisite: permission of instructor. Cr 1-3.

#### **EDPE 401 Practicum in Physical Education**

##### **Leadership**

Provides opportunity for a seminar approach to group thinking and discussion of problems of the beginning teacher. Areas of emphasis include organization, administration and conduct of programs of physical education, intramurals, and recreation in the elementary and secondary school. Opportunity for each student to gain leadership experience in local area schools or recreational agencies under the supervision of qualified teachers/leaders and a University instructor. Prerequisite: previous experience with children or permission of instructor. Cr 3.

### **Science Area Concentration and Minor**

Science Area concentration or minor consists of 30 hours or 10 hours respectively of courses elected from the following areas: Astronomy, Biology, Chemistry, Earth Science, Geology, Meteorology, Oceanography, Physics, Physical Science.

It is suggested that the students plan with their advisers a sequence of three introductory courses such as:

- (1) PSCI 110 Elements of Physical Science
- (2) GEOL 111 Physical Geology
- (3) BIO 101 Biological Principles

The additional courses should represent a variety of science areas and may be chosen from the following recommended electives:

ASTR	100	Astronomy
BIO	103	Biological Diversity
BIO	104	Survey of Animals and Plants
CHEM	111	General Chemistry I
CHEM	151	Environmental Chemistry
ESCI	200	Environmental Science
ESCI	202	Conservation
ASTR	210	Observational Astronomy
GEOL	112	Historical Geology
PSCI	310	History of Science
MET	100	Meteorology
OCN	100	Introduction to Oceanography
PHYS	100	Descriptive Physics
PHYS	111	Elements of Physics
ESCI	201	Natural Science

### **Social Science Concentration and Minor**

A Social Science concentration of 30 credits and minor of 18 credits consists of courses selected from the following areas: History, Sociology, Political Science, Anthropology, Geography, and Economics. Psychology courses may not be included in the program.

#### **Spanish Minor**

A foreign language minor in Spanish may be fulfilled by completing the following courses:

Required Courses:

SPN	131 and 132	Intermediate Spanish I & II
SPN	201 and 202	Composition/Conversation I & II
SPN	231 and 232	Introduction to Literature I & II

Students may register for optional language laboratory practice in SPN 101, 102, 131, and 132. Students should also take the professional education course FLED 301 — The Teaching of Foreign Languages.

## SECONDARY EDUCATION PROGRAM IN MATHEMATICS REQUIREMENTS

- A. General Education Requirements - 32 semester hours
- B. Teaching Specialty - Mathematics 39 to 51 semester hours
- C. Professional Education Requirements - 23 semester hours
- D. Electives

NOTE: Teacher certification requirements require that a teacher candidate successfully complete a concentration of 50 hours OR a major of 30 semester hours and a minor of 18 hours of subjects commonly taught in the secondary schools.

### COMPUTER SCIENCE AND MATHEMATICS FOR EDUCATION MAJORS

A) The Department of Mathematics and Computer Science in cooperation with 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.

I. Successful completion of the following:

MS	152	Calculus A
MS	153	Calculus B
MS	252	Calculus C
MS	290	Foundations of Mathematics; or
CS	280	Discrete Structures
CS	160	Introduction to Programming: FORTRAN

II. Successful completion of one course from each of the following areas:

Algebra:	MS	380	Linear Algebra
	MS	382	Abstract Algebra
Analysis:	MS	352	Real Analysis I
	MS	354	Topics in Advanced Calculus
	MS	355	Complex Analysis
	MS	490	Topology
Applied Mathematics:	MS	350	Differential Equations
	MS	362	Probability & Statistics I
	MS	364	Numerical Analysis I
Geometry:	MS	370	College Geometry
	MS	371	Projective Geometry
	MS	372	Non-Euclidean Geometry

III. Successful completion of five of the following Computer Science courses:

CS	161	Algorithms in Programming
CS	250	Introduction to Computer Systems
CS	350	Systems Programming
CS	355	Computer Architecture
CS	358	Data Structure
CS	360	Concepts of Higher Level Programming Languages
CS	370	Topics in Computer Science
CS	374	Numerical Analysis I

IV. Successful completion of six additional hours of electives in Mathematics or Computer Science with second digit 5 or greater.

V. Professional Education Courses:

			Credit Hours
EDU	150	Preprofessional Experiences .....	2
EDU	200	Foundations of Education .....	3
EDPY	333	Human Growth and Development .....	3
EDU	314	Secondary Curriculum .....	3
EDU	316	Introduction to Learning Disabilities .....	3
MSED	345	Teaching Mathematics in the Secondary School .....	3
EDU	324	Student Teaching .....	12

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 MSED 345.

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



B) A minor in Computer Science may be obtained by successfully completing 21 hours of the Computer Science courses listed below:

Required: CS 160, CS 161, CS 250, CS 280, CS 360, CSED 345.

Two courses from the following: CS 350, CS 374, CS 358, CS 370.

C) A minor in Mathematics may be obtained by successfully completing 18 hours of Mathematics courses in which the second digit is 5 or greater.

D) Early Childhood or Elementary majors may fulfill an area concentration by successfully completing MS 131, MS 231, MS 232, and seven elective three-credit hour Mathematics courses with MS code numbers of 120 or above.

E) Early Childhood or Elementary majors may complete an academic minor in Mathematics by successfully completing MS 131, MS 231, MS 232 and three elective three-credit hour Mathematics courses with MS code numbers of 120 or above.

### Teaching Minor in Computer Science

1.	CS 160	Introduction to Programming: FORTRAN	
	CS 161	Algorithms in Programming	
	CS 280	Discrete Structures	
	CS 360	Concepts of Higher Level Programming	
		.....	12
2.	Two of the following courses: CS 250, CS 350, CS 358, CS 370, CS 374		.....6
3.	CSED 345 - Teaching Computer Science in the Secondary School		.....3
	Total		21

## COURSE DESCRIPTIONS

### Courses in Early Childhood and Elementary Education

#### EDU 150 Preprofessional Field Experience

This course is required of all Education majors and is normally taken during the second semester of the freshman year. The purpose of the course is to provide an exploratory opportunity in public school or educative agencies to assist students in becoming acquainted with the teaching profession and to examine various options in the field of education. Students may elect this course for only 2 credits per semester for a maximum of three semesters. Transportation not provided. (Pass-Fail only.) Required orientation meeting each semester, September and January. Cr 2.

#### 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 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. (Formerly Primary Curriculum) 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: EDPY 333. Cr 3.

#### EDU 302 Primary Reading

This course introduces and analyzes the basic components of the primary reading program. The topics include: individual differences in reading readiness; word perception, reading interests; the directed reading-thinking activity, diversifying comprehension requirements; and diagnosis of reading. Cr 3.

#### EDU 303 Developmental Reading I

A basic course encompassing the developmental reading program. Content includes the major stages of reading progress, specific instructional methods and materials and informal diagnostic techniques. Students are exposed to the characteristics of reading at different levels. Case studies are used to highlight instructional practices. 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 elemen-

tary school math classes. All planning and teaching will occur with guidance of the professor and the public school cooperating teacher. Recommended to be taken concurrently with EDU 307. Prerequisites: MS 131, EDPY 333, and EDU 301. Cr 3.

#### **EDU 305 Methods of Teaching Elementary School Mathematics**

The content of this course will focus on developing techniques for teaching mathematics to elementary grade pupils. The course will be conducted mainly in the setting of a mathematics resource center, featuring manipulative devices appropriate to teaching mathematics concepts. Prerequisites: MS 131, EDPY 333, and EDU 301. Cr 3.

#### **EDU 306 Reading in the Content Areas**

The course presents methods and techniques that middle and upper grade teachers can use in helping pupils transfer reading proficiencies in content areas. Areas covered include readability of instructional materials, concept acquisition strategies, comprehensive, vocabulary development and study skills. 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. Recommended to be taken concurrently with EDU 304. Cr 3.

#### **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: EDPY 333 or 335. Cr 3.

#### **EDU 309 Selection and Utilization of Education Media**

A course designed to orient the pre-service and the in-service teacher to current trends in instructional media. Instruction will be directed to proper selection and utilization of the latest available equipment and materials. There will be provision for associated laboratory work. 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 \$10.00. Cr 3.

#### **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. Opportunities to work with children in local schools are stressed. Cr 3.

#### **EDU 313 Maine School Law**

A review and interpretation of those statutes which directly affect the teacher. The case-study method is employed to cover such topics as certification, employment, tenure, dismissal, professional rights and responsibilities of the teacher, liability, curriculum, requirements, attendance and classification of pupils, church-state relationship, and pupil control. Cr 3.

#### **EDU 314 Secondary School Curriculum: Methods and Materials**

This course is designed to provide an overview of the techniques of teaching concepts in grades 7-12. Emphasis will be given to clarifying the intent of instruction, organizing daily and unit lessons, and assessing accomplishment. Open only to matriculated secondary education students majoring in mathematics or computer science. 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 318 Teaching Science in the Secondary School**

History of science education, methods and materials in the teaching of science, curricular trends, emphasis on behavioral objectives. May include student demonstrations, opportunity for observation and participation in secondary schools. Students concentrating in biology are strongly urged to take EDU 330, Teaching Biology in the Secondary School, in place of this course. Prerequisite: junior or senior standing. 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 Kindergarten Development**

Students are involved with curriculum, materials, methods, and philosophies of contemporary and conventional kindergarten and early childhood programs. An emphasis is upon the practical, as well as the theoretical. 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 a basic course in reading. 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 crea-

tion 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: Preschool, Early Elementary, 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 each year. Cr 12.

#### **EDU 325 Internship**

Year long internship during the junior or 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 Preschool, Early Elementary, and Elementary majors only. Cr 18.

#### **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 328 Teaching Family Life and Sex Education**

A philosophical, physiological, and methodological approach to education for sexuality in the schools. Activities provided for development of knowledge competence and communication skills, perspectives, methods and materials, program planning, and curriculum development included. 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 percept and example, methods of individualizing reading. The student will be expected to read children's books widely and in depth. Cr 3.

#### **EDU 340 Language Acquisition**

This course focuses on the development of language acquisition, 0-5 years; factors which affect language acquisition process; brief introduction to deviations in early language and speech function; and materials, methods and skill development for facilitating language and speech development. Cr 3.

#### **EDU 342 Theories and Practices in Early Childhood Education**

In addition to familiarizing the student with the historical perspective of early childhood education, this course is designed to acquaint the student with the underlying philosophical bases of a wide variety of early education models and with the approaches for implementing these models. Content will be presented by means of films, filmstrips, recordings, guest speakers, group discussions, student presentations and lectures. Cr 3.

#### **EDU 344 Teaching the Child Under Six**

Philosophy, curricula, methods, and materials of

the preschool child and his teachers. Extensive observation and field experience are integral parts of the course. Prerequisite or corequisite EDU 342. Cr.3

#### **EDU 346 Exceptionality and the Preschool Child**

This course is designed primarily for students interested in exceptionality and the preschool child. It is intended to be a practical introduction to the field of exceptionality. Topics covered will include: definitions, labels, brief history of special education, the law, integration, attitudes, diagnosis and prescription, materials, and community resources. Cr 3.

#### **EDU 348 Cooperative Experiences in Early Childhood Education**

This course is designed exclusively for Early Childhood Education Majors who are currently contributing to a preschool or K-3 program in a public or private school. Seminars and on-site visits by the instructor will be an integral part of the experience. Prerequisites: EDU 150 and instructor approval of the cooperative experience site. Cr 3.

#### **EDU 350 Modern Philosophies of Education**

This course is designed to examine the current patterns of thought that ground and guide contemporary theory, policy, and practice in the enterprise of education. An emphasis will be placed on philosophy as an activity through which one critically examines the merits of alternative patterns of educational thought and seeks to form a personal philosophy of education. Open to juniors and seniors; other by permission of instructor. Cr 3.

#### **EDU 351 Historical Foundations of American Education**

This course examines the development of public education in the United States and traces selected reforms that have influenced and altered the nature, purposes, and roles of this institution. Offered during the first and third quarters of the academic year. Prerequisites: EDU 200. Cr 3.

#### **EDU 352 Role of School in Social Change**

A study of selected types of action for social change, the theories that support each type and the consequences of social change for persons and society. The focus of the course is to examine the role of education in the whole process of social change. 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 co-terminously 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 367 Psycholinguistics**

This course is designed to study the mental processes which underlie the acquisition and use of language



as it is related to human development and other behavior, including learning and thought. This course will deal with the normal acquisition of language from birth through the primary years. Included in the course will be how to recognize and deal with students in the classroom whose language is delayed. Selected tests will be studied in terms of their relationship to educational tasks. Examples of language problems will be provided as well as materials and suggestions for classroom language activities. 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 371 Career Education for the Elementary School**

Exploration of the Career-Based Curriculum model emphasizing the relationship and interdisciplinary nature of all curricular areas to the Career Education theme. Students will work with tools, equipment, and materials applicable to the elementary setting and will develop model lessons and units of study stressing career awareness and guidance practices. (Career Education as the major thrust for education of our young people as well as adults). Cr 3.

#### **EDU 393 Science Field Workshop**

An advanced field experience designed to enhance the student's awareness of and capability in the teaching of science to young children. Students individually, or in small groups, plan process-concept hierarchies, translate these into activities for appropriate learning levels, and prepare the materials

necessary for classroom implementation. Students are expected to trial teach their units in classrooms under close supervision of cooperating school and University staff. Pass/Fail grading. Cr 3.

#### **EDU 440 Workshop in Creative Expression**

A "hands on" course for those who plan to work with children aged 3-8, this workshop is designed to acquaint and involve the student with music, movement, puppetry, art, crafts, creative dramatics and dramatic play. Participants will also examine the nature of creativity, what can be done to enhance it, how to get the environmental conditions that will nurture creative talent and how to provide activities that will encourage young children to use their creativity. Cr 3.

#### **EDU 442 Organizing and Directing the Preschool**

Comprised of a series of discrete modules, this course will focus on the implementation, organization, and continued functioning of the preschool. Equipment, daily routines, health and safety, licensing regulations, parent involvement, and funding will be among the topics explored. Students will spend considerable time while participating in this course. Cr 3.

#### **EDU 449 Introductory Photography**

Basic principles, skills, and techniques of the photographic medium. The course of study will consider the camera, film, composition, lighting, exposure, processing, printing, and print finishing. Major thrusts to be in the black and white realm. Lab fee: \$15.00. Cr 3.

#### **EDU 465 Instructional Media for the Early Childhood Teacher**

This course is designed to equip the early childhood teacher with skills and resources to design, prepare and utilize appropriate instructional media. The course will be lecture-demonstration with laboratory experiences designed to afford each student a high degree of facility with media material and equipment. Lab fee: \$7.50. Cr 3.

#### **EDUX 299 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. Cr 3.

#### **EDUX 399 Methods and Materials for Teaching Learning Disabled**

This course reviews approaches and materials currently 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 499 British Exchange**

A cooperative program between the College of Education of USM and King Alfred's and Whitelands Colleges in England. Students may elect to take up to 15 credits per semester with prior USM departmental approval. Cr Var.

# DEPARTMENT OF HUMAN RESOURCE DEVELOPMENT

## HUMAN RESOURCE DEVELOPMENT PROGRAM DESCRIPTIONS

The Department of Human Resource Development is primarily responsible for the delivery of graduate programs in counselor education and community education. The Department also administers a unique undergraduate Early Childhood Intern Program, as well as the associate and bachelor's degree programs in Therapeutic Recreation.

### Program Requirements

**The Early Childhood Intern** curriculum is specifically designed for the student (intern) who is employed in a preschool classroom and at the same time studying for a baccalaureate degree. Since each intern is working full-time, it is estimated that completion of the program will take six years. The curriculum qualifies the graduate to teach preschool through early grades. Home, school and community can foster this learning. Special emphasis is placed on teaching the child from infancy to eight years of age.

### Curriculum Outline

#### General Studies (Primary)

Interns will complete the core of general studies as described in this catalog. Seven learning centers have been established throughout the state and interns in each of these geographic areas decide which of these courses will be offered in their learning center each semester. Instructors are chosen with the approval of both the University and the interns.

#### Professional Studies

##### Field Teaching Experiences

The unique aspects of this option are as follows:

The interns are already working in preschool classrooms located throughout Maine and each intern has an advisory committee. Each committee member observes the intern's teaching competence and recommends individualized learning experiences for improving teaching skills.

Workshops are provided to enable the intern to focus on specific areas of teaching competence. The advisory committee is selected by the intern and consists of the intern, a University advisor who is a specialist in preschool education, the parent of a child who has been enrolled in the intern's classroom, and a "child advocate" who is a community person working with children. This child advocate might be the head teacher in charge of the classroom, the education supervisor, or a consultant who frequently observes in the classroom. Demonstrated teaching competence in the preschool classroom is an important objective of this program.

Each intern keeps a portfolio which contains certificates of attendance at workshops, transcripts of college courses completed, minutes of assessment committee meetings and any documentation relevant to the intern's classroom competence.

In the series of Field Teaching Experiences Courses (EDFE 201, 203-209) listed below, the intern focuses on teacher competencies outlined by the Child Development Associate (CDA) Consortium.

EDFE	201	Directed Classroom Observation.....	3 credits
EDFE	202	Directed Classroom Participation.....	2 credits (optional)
EDFE	203	Safe, Healthy, Learning Environments.....	2 credits
EDFE	204	Advancing the Child's Physical and Intellectual Competence.....	2 credits
EDFE	205	Building the Child's Self-Concept and Individual Strength.....	2 credits
EDFE	206	Positive Functioning of Children and Adults in the Classroom.....	2 credits
EDFE	207	Coordination of Home and School.....	2 credits
EDFE	208	Preschool Administration.....	2 credits
EDFE	209	The Competent Teacher.....	4 credits

#### Professional Education Courses

Interns will complete the courses required for Early Childhood Education majors as follows:

EDU	200	Studies in Foundations of Education
EDU	300	Introduction to Teaching in the Primary Grades
EDU	302	Primary Reading

- EDU 307 Practicum in Elementary Science
- EDU 333 Human Growth and Development
- EDU 336 Children's Literature

— Field Teaching Experiences may be substituted for EDU 324 Student Teaching.

EDU 344 Teaching the Child Under Six is required.

Concentration/Minors (a 30-credit concentration or two 18 credit minors) are required.

It is recommended that interns complete an 18 credit minor in English and another 18 credit minor in Learning Disabilities.

## COURSE DESCRIPTIONS

### EDED 300 Economic Concepts and Resource

#### Materials

A study of the simplification of economic concepts and preparation of resource materials used for presentation at elementary grade levels. Cr 3.

### EDPY 331 Group Dynamics

An experimental study of the nature of group process and one's own functioning in a group. The developing awareness of one's 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. Prerequisite: upper class or graduate status and permission of instructor. Cr 3.

### EDPY 332 Psychology of the Self

An exploration into the development of the self, primarily as an issue of personal growth. Topics might include alienation, loneliness, and verbal-non-verbal communication. Learning techniques center

around reading, common class experience, and intensive small-group interaction. Prerequisite: permission of instructor. Cr 3.

### EDPY 333 Human Growth and Development

A study of significant elements in the physical, mental, emotional, and social make-up of children as they develop from infancy to adolescence. Selected case-studies and projects in the application of basic principles of growth and development to problems of adjustment to school, home, and community. Special attention is given to the developmental tasks of school-age children. Cr 3.

### EDPY 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: upper class status. Cr 3.

## CURRICULUM FOR THE ASSOCIATE OF SCIENCE DEGREE IN THERAPEUTIC RECREATION (Sixty Credit Hours)

The two-year program in Therapeutic Recreation consists of the following courses leading to the Associate of Science degree:

### General Foundation Courses

Required	Credits
ENG 010 (101) Freshman Writing.....	3
THE 017 (170) Oral Communication.....	3
or	
COM 017 (171) Interpersonal Communication.....	3
BIO 019 (100) Biological Basis for Human Activity.....	3

#### Electives

Humanities Area (one course).....	3
Social Sciences Area (one course).....	3
General Elective course.....	3

### Major Requirements

RTL5 010 Introduction to Recreation and Leisure Services.....	3
RTL5 011 Leadership, Supervision and Program Planning in Recreation.....	3
RTL5 012 Organization and Administration of Recreation Services.....	3
RTL5 013 Preprofessional Field Experience.....	3
RTL5 016 Advanced First Aid and Emergency Care.....	3
RTL5 020 Introduction to Therapeutic Recreation Services.....	3

RTLS	030	Methods and Materials in Therapeutic Recreation .....	3
RTLS	095	Internship .....	9
		Internship Orientation .....	
Select two courses from the following .....			9
RTLS	021	Development and Utilization of Therapeutic Recreation Resources .....	
RTLS	022	Recreation Activities for Special Populations .....	
RTLS	031	Arts and Crafts in Therapeutic Recreation .....	
RTLS	033	Environmental Recreation for Special Populations .....	
Two elective courses in recreation .....			6

### Courses with Prerequisites

Course	Prerequisite
RTLS 011, 012 .....	RTLS 010
RTLS 021 .....	RTLS 020
RTLS 030 .....	RTLS 020
RTLS 031 .....	RTLS 020
RTLS 033 .....	RTLS 020
RTLS 095 .....	Completion of 30 credit hours and RTLS 013

Transfer Option from the Two-Year Associate Degree Program in Therapeutic Recreation to the Four-Year Degree Program in Therapeutic Recreation:

Students in the associate degree program in Therapeutic Recreation who have a 3.0 cumulative average at the end of the first year or a 2.4 cumulative average at the end of their second year may transfer to the four-year Therapeutic Recreation program. Students interested in this option are advised to meet with Dr. Meyer.

## COURSE DESCRIPTIONS IN THE ASSOCIATE DEGREE PROGRAM

### RTLS 010 Introduction to Recreation/Leisure Services

Goals for American Recreation studied in modern context; implications for the profession; historical background, concepts of work, leisure, recreation; trends, issues, and future directions. Cr 3.

### RTLS 011 Leadership, Supervision and Program Planning 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. Cr 3.

### RTLS 012 Organization and Administration of Recreation

This course acquaints students with the need for, and nature of, recreational programs, with special consideration given to the skills and techniques necessary to organize and administer recreation programs. Cr 3.

### RTLS 013 Preprofessional Field Experience

This course will provide the student 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 West Education 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. Cr 3.

### RTLS 016 Advanced First Aid and Emergency Care

This course will cover the topics prescribed by the American Red Cross in their advanced first aid and

emergency care course, including respiratory emergencies, artificial respiration, wounds, poisoning, water accidents, drugs, burns, emergency childbirth, emergency rescue and transfer, and other topics. Successful completion of the course requirements will lead to advanced Red Cross first aid and emergency care certification. Cr 3.

### RTLS 019 - Personal Fitness

This course is intended to help the student understand the basics of physical fitness and to provide sound information for developing a systematic program of exercise and physical activity that best fits the individual's needs. An understanding of how our body responds and adapts to single and repeated bouts of exercise is essential for understanding the limits of our bodies as well as for improving the functional capacity of our heart, lungs, and muscles for the betterment of our health and well-being. In addition to the lecture material, students are provided with laboratory experiences in measuring individual aspects of fitness including body fat, flexibility, strength, respiratory function and functional work capacity. An added aspect of this course is an investigation of the interrelationships among nutrition, weight control, coronary artery disease, stress, and physical activity. There will be discussion of a wide variety of aerobic sports with emphasis on the value and feasibility of lifelong physical fitness activities. The course involves one hour of lecture per week plus three exercise sessions designed to achieve an improved fitness level. Co-ed. Both semesters. One hour lec., three hours lab. Cr 2.

### RTLS 020 Introduction to Therapeutic Recreation Services

Concentrated study of recreation service to the aged and those who are ill, handicapped, or disabled. In-

quiry into the elements of therapeutic recreation service; current treatment and care patterns; the nature of disability; how recreation service is related to disability. Cr 3.

**RTLS 021 Development and Utilization of Therapeutic Resources**

This course is designed to provide basic instruction in audiovisual and media production techniques for people working with the handicapped and in homes for the elderly. It will include the basic operation of audiovisual equipment such as 16mm projectors, slide projectors and tape recorders. Hands on preparation of visual displays, bulletin boards, schedule boards, lettering techniques, duplication and mimeo techniques. The course will focus on locally available resources for program planning for the handicapped. Cr 3.

**RTLS 022 Recreation Activities for Special Populations**

Adapted (indoor) physical recreation and leisure activities to meet the needs and abilities of special populations. Students will have the opportunity to present these activities to special groups during some of the class sessions. Cr 3.

**RTLS 030 Methods and Materials in Therapeutic Recreation**

Philosophy, motivational techniques, utilization of equipment, methods of instruction and organizing materials and groups relating to special populations. Cr 3.

**RTLS 031 Arts and Crafts in Therapeutic Recreation**

This course will explore and assist students in learning how to make various crafts in a laboratory setting. Majors will be given the opportunity to work with macrame, block printing, tapestry weaving, crewel, basket weaving, decoupage, and leather work. Cr 3.

**RTLS 033 Environmental Recreation for Special Populations**

Technical training and experiences in an outdoor environmental setting utilizing adapted recreation and education for special groups. Cr 3.

**RTLS 095 Internship**

Pre-professional assignment in three recreation settings (e.g., nursing homes for the aged, institutions, agencies, half-way houses, hospitals, parks, camps, playgrounds, schools for the handicapped, penal institutions, and rehabilitation centers). Faculty supervision and guidelines provided. The student must maintain a daily log. Cr 9.

**CURRICULUM FOR THE BACHELOR OF SCIENCE DEGREE IN THERAPEUTIC RECREATION (120 Credit Hours)**

This program consists of the following courses leading to the Bachelor of Science degree:

**General Foundation Courses**

	<b>Credits</b>
Area I Humanities .....	9
ENG 100 College Writing or ENG 101 Independent Writing	
ENG 120 Introduction to Literature	
ENG 204 Advanced Writing or another advanced writing course for Therapeutic Recreation majors	
Area II Fine and Applied Arts.....	6
MUS 100 Music Appreciation and History	
THE 170 Public Speaking	
Area III Science and Mathematics.....	9
BIO 101 Biological Principles	
BIO 111 Human Anatomy and Physiology plus Lab	
BIO 200 Human Heredity and Embryology	
Area IV Social Sciences .....	12
COM 102 Introduction to Communication or COM 250 Small Group Communication	
SWE 101 Introduction to Human Services	
SWE 266 Concept of Self and the Handicapped Person	
PSY 101 General Psychology	
Area V General .....	6
Any of the courses offered by the College of Arts and Sciences	
	42

**Major Requirements**

**Courses in Therapeutic Recreation**

RTLS 110 Introduction to Recreation and Leisure Services.....	3
RTLS 113 Pre-Professional Field Experience .....	3
RTLS 120 Introduction to Therapeutic Recreation Services .....	3
RTLS 211 Leadership, Supervision, and Program Planning in Recreation .....	3
RTLS 216 Advanced First Aid and Emergency Care.....	3



RTLS	312	Organization and Administration of Recreation.....	3
RTLS	314	Leisure Counseling .....	3
RTLS	330	Methods and Materials in Therapeutic Recreation .....	3
RTLS	370	Therapeutic Recreation and Mental Health .....	3
RTLS	380	Therapeutic Recreation and Physical Disabilities .....	3
RTLS	390	Therapeutic Recreation and Developmental Disabilities .....	3
RTLS	480	Seminar in Management, Supervision and Consultation in Therapeutic Recreation.....	3
RTLS	490	Senior Seminar in Therapeutic Recreation .....	3
RTLS	495	Internship.....	9
		Internship Orientation	

**Elective Courses Inside the Department**  
(select 12 credit hours)

RTLS	100	Recreation and Leisure Activities.....	1
		Racquetball	Squash
		Handball	Karate
		Horsemanship	Lifeline—Walk/Jog
		Tennis	Lifeline—Weight Training
		Cycling	Lifeline—Aerobics
		Laboratory, 2 hours	Cr 1., per activity
RTLS	215	Social Recreation.....	3
RTLS	217	Small Boat Handling and Seamanship .....	2
RTLS	219	Personal Fitness .....	3
RTLS	221	Development and Utilization of Therapeutic Recreation Resources .....	3
RTLS	222	Recreation for Special Populations .....	3
RTLS	223	Dance in Recreation/Leisure .....	3
RTLS	226	Leadership in Recreation/Leisure Activities .....	3
RTLS	231	Arts and Crafts for Special Populations .....	3
RTLS	240	Personal and Community Health.....	3
RTLS	250	Adapted Aquatics.....	3
RTLS	333	Environmental Recreation for Special Populations .....	3
RTLS	334	Environmental Recreation .....	3
RTLS	335	Urban Recreation .....	3
RTLS	343	Perceptual-Motor Learning.....	3
RTLS	357	Parks and Recreation Facilities and Design .....	3
RTLS	398	Independent Study in Recreation/Leisure.....	3
RTLS	414	Sports, Culture and Society.....	3
RTLS	270	Perspectives on Aging and Human Kinetics.....	3

**Elective Courses Outside the Department**  
(select six courses)

**Sample Listing**

*BUS	101	Principles of Financial Accounting .....	3
COM	171	Interpersonal Communication .....	3
EDU	316	Introduction to Learning Disabilities .....	3
POL	101	Introduction to American Government .....	3
EDPY	331	Group Dynamics .....	3
EDPY	333	Human Growth and Development .....	3
*MS	120	Introduction to Statistics .....	3
MUS	110	Fundamentals of Music.....	3
PSY	220	Developmental Psychology .....	3
PSY	223	Child Development .....	3
PSY	232	Psychology of Adjustment.....	3
PSY	320	Psychology of Personality .....	3
PSY	333	Psychopathology.....	3
PSY	335	Deviations of Childhood .....	3
SOC	310	Social Change.....	3
SOC	354	Small Group Analysis .....	3
SOC	374	Sociology of Mental Health and Mental Illness .....	3
SOC	375	Sociological Perspectives on Deviance .....	3
SWE	351	Human Services and the Consumer .....	3

\*Highly Recommended

## Courses with Prerequisites

Course		Prerequisite
RTLS 113	.....	RTLS 4211
RTLS 211	.....	RTLS 110
RTLS 330	.....	RTLS 120
RTLS 370	.....	RTLS 330
RTLS 380	.....	RTLS 330
RTLS 390	.....	RTLS 330
RTLS 480	.....	RTLS 312, 495
RTLS 490	.....	RTLS 495

## COURSE DESCRIPTIONS IN THE BACHELOR OF SCIENCE DEGREE PROGRAM

### Major Requirements

#### **RTLS 110 Introduction to Recreation and Leisure Services**

The history of recreation is traced from primitive times to predictions for the future. Leisure awareness and all the intricacies of the recreation experience are covered. Cr 3.

#### **RTLS 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 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. Cr 3.

#### **RTLS 120 Introduction to Therapeutic Recreation Services**

Concentrated study of recreation service to the aged and those who are ill, handicapped, or disabled. Inquiry into the elements of therapeutic recreation service; current treatment and care patterns; the nature of disability; how recreation service is related to disability. Cr 3.

#### **RTLS 211 Leadership, Supervision, and Program Planning 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. Cr 3.

#### **RTLS 216 Advanced First Aid and Emergency Care**

This course will cover the topics prescribed by the American Red Cross in their advanced first aid and emergency care course, including respiratory emergencies, artificial respiration, wounds, poisoning, water accidents, drugs, burns, emergency childbirth, emergency rescue and transfer, and other topics. Successful completion of the course requirements will lead to advanced Red Cross first aid and emergency care certification. Cr 3.

#### **RTLS 312 Organization and Administration of Recreation**

This course acquaints students with the need for, and nature of, recreational programs, with special consideration given to the skills and techniques necessary to organize and administer recreation programs. Cr 3.

#### **RTLS 314 Leisure Counseling for Life in a Contemporary Environment**

The intent of this course is for students to study and learn how to assist people in planning for and finding 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. Cr 3.

#### **RTLS 330 Methods and Materials in Therapeutic Recreation**

Philosophy, motivational techniques, utilization of equipment, methods of instruction and organizing materials and groups relating to special populations. Cr 3.

#### **RTLS 370 Therapeutic Recreation and Mental Health**

A psycho-social analysis of the determinants and sequences of leisure behavior as related to mental health. This course introduces the student to the broad perspectives of leisure in relation to mental health, then focuses upon specific uses of recreation as a behavioral-change agent. The format of the course involves lectures, discussions, as well as awareness exercises. Prerequisites: RTLS 120, RTLS 330. Cr 3.

#### **RTLS 380 Therapeutic Recreation and Physical Disabilities**

The psycho-social aspects of physical disabilities with specific reference to planning, implementing, and evaluating leisure activities. Various approaches to human growth and development; to the handicaps that block typical development; and to ways in which experiential exercises will facilitate the learning process. Prerequisites: RTLS 120, RTLS 330. Cr 3.

#### **RTLS 390 Therapeutic Recreation and Developmental Disabilities**

An analysis of the motor and psycho-social behavioral dimensions related to developmental disabilities. The specific and direct uses of recreation as a rehabilitation agent will be examined. Classroom and practical exercises will provide experience in supervision and programming techniques. Prerequisites: RTLS 120, RTLS 330. Cr 3.

#### **RTLS 480 Seminar in Management, Supervision and Consultation in Therapeutic Recreation**

Recreation Open to fourth-year students in Therapeutic Recreation only. This course will ex-

amine management roles, therapeutic recreation service-delivery systems as well as supervision techniques for promoting the professional growth of personnel. Consultation in therapeutic recreation will be explored as a professional function. Cr 3.

**RTLS 490 Senior Seminar in Therapeutic Recreation**  
Open to fourth-year students in Therapeutic Recreation only. Intensive small-group discussions designed to integrate and synthesize previous learning as a unified, personal philosophy. This course will provide an overall perspective of the discipline, some insights into current issues, and a view of the future of Therapeutic Recreation. Cr 3.

**RTLS 495 Internship**  
This course is to be taken in the senior year. Students are required to work a minimum of 32 to 40 hours a week at a camp, recreation department, school, agency, hospital, institution, or nursing home. Students are expected to select three different experiences, approximately five weeks at each experience, when possible, and must keep a daily log of their experiences to be passed in to the instructor at the end of the semester. A University supervisor will visit and evaluate each student at least three times during the internship. Cr 9.

## Elective Courses Inside the Department

**RTLS 124 Posture and Efficiency of Movement**  
An introduction to exercise that helps to maintain good posture and correct faulty habits. Efficiency in the use of the body for lifting, carrying and performing various recreation sports movements will be emphasized. Requirement for nursing students. Lecture, 1 hour; laboratory 1 hour. Eight weeks. Cr 1.

**RTLS 201 Circuit Training for Women**  
Lectures will cover how to start an individualized fitness program, components of fitness, maturation, aging, types of exercise programs, and personal evaluation. Effective and efficient movement patterns will also be explored. Practical application is an integral part of the course. Cr 2.

**RTLS 215 Social Recreation**  
Techniques of leadership, participation, planning for recreation in social settings for all ages — parties, programs, special events. Repertoire — mixers, dances, games, songs, and skits. Creativity stressed. Cr 3.

**RTLS 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.

**RTLS 218 Rhythmic Dance Activities**  
An introduction to basic dance tempos including folk, social, and square dances. Co-ed. Two hours lab. Cr 1.

**RTLS 219 Personal Fitness**  
This course is intended to help the student understand the basics of physical fitness and to provide sound information for developing a systematic program of exercise and physical activity that best fits

the individual's needs. An understanding of how our body responds and adapts to single and repeated bouts of exercise is essential for understanding the limits of our bodies as well as for improving the functional capacity of our heart, lungs, and muscles for the betterment of our health and well-being. In addition to the lecture material, students are provided with laboratory experiences in measuring individual aspects of fitness including body fat, flexibility, strength, respiratory function and functional work capacity. An added aspect of this course is an investigation of the interrelationships among nutrition, weight control, coronary artery disease, stress, and physical activity. There will be discussion of a wide variety of aerobic sports with emphasis on the value and feasibility of lifelong physical fitness activities. The course involves 90 minutes of lecture per week plus three exercise sessions designed to achieve an improved fitness level. Co-ed. Both semesters. 90 minutes lec., three hours lab. Cr 3.

**RTLS 221 Development and Utilization of Therapeutic Resources**  
This course is designed to provide basic instruction in audiovisual and media production techniques for people working with the handicapped and in homes for the elderly. It will include the basic operation of audiovisual equipment such as 16mm projectors, slide projectors and tape recorders. Hands on preparation of visual displays, bulletin boards, schedule boards, lettering techniques, duplication and mimeo techniques. The course will focus on locally available resources for program planning for the handicapped. Cr 3.

**RTLS 222 Recreation for Special Populations**  
Adapted (indoor) physical recreation and leisure activities to meet the needs and abilities of special populations. Students will have the opportunity to present these activities to special groups during some of the class sessions. Cr 3.

**RTLS 223 Dance in Recreation/Leisure**  
The student will be given an opportunity to learn how to plan, organize and administer various types of dance and movement programs as they pertain to a community recreation program. Cr 3.

**RTLS 225 Man and Leisure**  
The growth of leisure in modern society and the recognition of leisure and recreation as important aspects in the lives of individuals will be presented. Historical, philosophical, psychological, sociological, economical, educational, ecological, political and physiological. Cr 3.

**RTLS 226 Leadership in Recreation/Leisure Activities**  
This course will acquaint the student with a variety of recreation/leisure activities through actual participation. Also, the student will learn the rules and strategies of these activities. Cr 3.

**RTLS 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. Majors will be given the opportunity to work with macrame, block printing, tapestry weaving, crewel, basket weaving, decoupage, and leather work. Cr 3.

### **RTLS 240 Personal and Community Health**

A lecture-discussion course for students interested in learning about the physical, mental, social, and spiritual dimensions of personal health. It examines how an individual goes about changing lifestyles in a contemporary society. This course will also help students to identify and understand quality personal and community health care programs. Cr 3.

### **RTLS 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 to students all the necessary skills and techniques for teaching handicapped youth how to swim and to discover the joys of participating in water activities. Cr 3.

### **RTLS 270 Perspectives on Aging and Human Kinetics**

Study of prevalent aging theories and concepts affecting total fitness of the elderly, and analysis of exercise-activity patterns and programs for the aging. Bio-scientific aspects of motor efficiency and mobility pertinent to pre-retirement and retirement populations will be examined. Guidelines will be offered for appropriate program development and content for persons interested in fitness and well-being of senior citizens. Cr 3.

### **RTLS 333 Environmental Recreation for Special Populations**

Technical training and experiences in an outdoor environmental setting utilizing adapted recreation and education for special groups. Cr 3.

### **RTLS 334 Environmental Recreation**

Instruction and practice of the skills involved in developing the various aspects of an environmental recreation program. The student will gain an understanding of theories and philosophies in organization, supervision and administration of environmental recreation programs related to home, school and community. Laboratory experiences in skill development will include: outdoor classroom construction, mountaineering, camping, and map and compass reading. Cr 3.

### **RTLS 335 Urban Recreation**

A course designed for those interested in exploring contemporary urban life in an experimental manner. Students will participate in a variety of field investigations in addition to lectures-discussions which

address the problem of orientating oneself to new urban environments as well as the exploration of values held by each student that might affect their ability to meet the leisure time needs of urban residents. Cr 3.

### **RTLS 343 Perceptual-Motor Learning**

Introductory course to the field of perceptual-motor learning including introduction to motor integration, psychological learning theories, measurement in research techniques in motor learning, and perceptual processes. Study of effects of practice, motivation, retention, and transfer. Cr 3.

### **RTLS 357 Parks and Recreation Facilities and Design**

An introduction to the general principles of modern design and maintenance of recreation and park facilities at the federal, state, municipal and commercial levels. Resource people, field trips and films are an integral part of this course as well as a written project. Cr 3.

### **RTLS 398 Independent Study in Recreation/Leisure**

This course is intended to provide students with an opportunity to pursue a project independently, charting a course and exploring an area of interest bearing upon it based on previous course experiences. A course outline must be prepared by the student and in addition a final written paper is required. By permission. Cr 3.

### **RTLS 414 Sports, Culture, and Society**

A lecture-discussion course for students on the social and cultural implications of sports in the "Seventies." Readings will be both far-ranging and specialized: the ritualistic side of competition and spectacle; the blurring of "professional" and "amateur," the fading of the hero-image; kid teams, kid champs, and adult aggressions; college conferences and academic values; racism, nationalism and the Olympics; thrills, violence, and gate-receipts; sport subcultures, from skateboarding to hang-gliding.

Additional readings will explore such contemporary issues in sports as winner-loser psychology, local pride and boosterism, mass vs. elite values, sexual stereotypes, machismo politics, and "femlib." Students will weigh the pros and cons of today's fitness mania, current recruiting methods, the wide use of stimulants and drugs, and the reality of seven-figure salaries. Selected poetry and fiction will dramatize the joy and sadness of sports. Cr 3.

## **INDUSTRIAL EDUCATION AND TECHNOLOGY**

### **DESCRIPTION OF DEPARTMENT**

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 such as lecture, technical laboratories, field experiences, industrial visitations and cooperative programs.

The curricula of the Department of Industrial Education and 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 and transportation, graphic communication, and manufacturing and construction provide a technical/conceptual background.

**Vocational/Occupational Education** recognizes prior learning and skill obtained through occupational experience. It is designed to prepare instructors 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. Students may concentrate in one of seven areas to prepare themselves for future employment needs.

The **Vocational Technology** program is an occupationally-oriented curricula designed for individuals who desire to prepare for managerial/supervisory roles. The program recognizes non-technical occupational experience, assesses prior learning and offers four areas of concentration in business/management. A minimum of three years of occupational experience is required as a prerequisite for the degree program.

## SPECIFIC ADMISSIONS REQUIREMENTS

Applicants for **Industrial Arts Education**, or those without occupational experience desiring to pursue the **Industrial Technology** program, must visit the Industrial Education Center for a tour of the facility, interviews with the faculty and testing of spatial relationships. 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 affidavits 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.

## INDUSTRIAL ARTS EDUCATION

A B.S. degree with a major in Industrial Arts Education will be granted upon successful completion of the following requirements:

**A. General Education:** 50 credit hours

Humanities	9 credits
Fine and Applied Arts	6 credits
Mathematics and Science	12 credits
Social Sciences	6 credits
Area 5; General	6 credits
Modern Industry (IA 270)	3 credits
Physical Education	2 credits
Electives (General)	6 credits

**B. Technical:** 51 credit hours (all 3 credit courses except as noted)

1. Core (45 credit hours)
  - IA 102 Introduction to Technology
  - IA 210 Electronics Technology
  - IA 220 Power Technology
  - IA 231 Technical Graphics
  - IA 241 Graphic Arts Technology
  - IA 250 Metal Technology
  - IA 260 Wood Technology
  - IA 311 Communication Electronics
  - IA 323 Energy and the Consumer
  - IA 331 Engineering Design Graphics
  - IA 342 Photo Offset Lithography
  - IA 351 Machining and Fabrication
  - IA 361 Production Manufacturing in Wood
  - IA 371 Plastics Technology
  - IA 490 Special Problems in Industrial Arts (1-3 credits)

2. Technical Electives (select any two)—6 credit hours

**Energy and Transportation**

IA 312	Computer Technology
IA 313	Electrical Construction
IA 321	Automotive Systems
IA 322	Automotive Diagnosis and Tuneup
IT 413	Instrumentation
IT 414	Digital Electronics
IT 423	Fluid Power
IT 424	Fluid Power Systems

**Graphic Communication**

IA 332	Architectural Drawing and Design
IA 333	Descriptive Geometry
IA 343	Communication Design
IT 434	Industrial Production Illustration
IT 435	Systems Analysis and Design
IT 444	Photographic Reproduction
IT 445	Color Reproduction Theory

**Manufacturing and Construction**

IA 352	Fabrication and Forming
IA 362	Residential Construction
IA 363	Wood Science
IA 370	Crafts Technology
IT 452	Metallurgy and Metrology
IT 472	Materials Testing (Wood/Metal)

**C. Professional Education:: 25 credit hours**

EDU 150	Preprofessional Field Experiences	2 credits
IAED 290	Contemporary Teaching in Industrial Education	2 credits
EDPY 333	Human Growth and Development	3 credits
or		
EDPY 335	Educational Psychology	3 credits
*IAED 380	Curriculum Materials in Industrial Arts	3 credits
*IAED 381	Methods of Teaching Industrial Arts	3 credits
*EDU 324	Student Teaching and Seminar	12 credits

\*Minimum 2.5 cumulative index required and must be maintained in order to register for IAED 380, IAED 381, and EDU 324 and for graduation from the program.

## INDUSTRIAL TECHNOLOGY

A Bachelor of Science degree in Industrial Technology will be granted upon successful completion of the following requirements for Option #1 or Option #2:

### OPTION #1: SKILL DEVELOPMENT

**A. General Education: 50 credit hours**

Humanities	6 credits
Fine and Applied Arts	6 credits
Mathematics and Science	18 credits
Social Sciences	6 credits
(E.CON 101 - Economics I)	
Area 5: General	6 credits
Physical Education	2 credits
Electives (general)	6 credits
(IA 270 or IVE 360 - Modern Industry)	

**B. Technical: 51 credit hours**

**I. Core (36 credit hours)**

IA 102	Introduction to Technology
IA 210	Electronics Technology
IA 220	Power Technology
IA 231	Technical Graphics
IA 241	Graphic Arts Technology
IA 250	Metal Technology
IA 260	Wood Technology;
IT 300	Motion and Time Study

- IT 310 Plant Layout and Material Handling
- IT 320 Occupational Safety
- IT 330 Production Control
- IT 340 Quality Control Fundamentals

2. Technical Electives (select a minimum of 9 credits from one of the groups below)—15 credit hours

**Energy and Transportation**

- IA 311 Communication Electronics
- IA 312 Computer Technology
- IA 313 Electrical Construction
- IA 321 Automotive Systems
- IA 322 Automotive Diagnosis and Tuneup
- IA 323 Energy and the Consumer
- IT 413 Instrumentation
- IT 414 Digital Electronics
- IT 423 Fluid Power
- IT 424 Fluid Power Systems

**Graphic Communication**

- IA 331 Engineering Design Graphics
- IA 332 Architectural Drawing and Design
- IA 333 Descriptive Geometry
- IA 342 Photo Offset Lithography
- IA 343 Communication Design
- IT 434 Industrial Production Illustration
- IT 444 Photographic Reproduction
- IT 445 Color Reproduction Theory

**Manufacturing and Construction**

- IA 351 Machining and Fabrication
- IA 352 Fabrication and Forming
- IA 361 Production Manufacturing in Wood
- IA 362 Residential Construction
- IA 363 Wood Science
- IA 370 Crafts Technology
- IA 371 Plastics Technology
- IT 452 Metallurgy and Metrology
- IT 472 Materials Testing (Wood/Metal)

**Optional Electives**

- IT 491 Industrial Internship I
- IT 492 Industrial Internship II

C. Education and Business: 27 credit hours

1. Core (15 credit hours)

- IVE 300 Occupational and Trade Analysis
- IVE 325 Conference Leading
- ECON 102 Principles of Economics II
- BUS 101 Principles of Financial Accounting
- BUS 340 Principles of Management

2. Professional Concentration (Select one area)—12 credit hours

**Area 1—General**

- |         |                                       |           |
|---------|---------------------------------------|-----------|
| BUS 102 | Financial and Management Accounting   | 3 credits |
| BUS 320 | Business Finance                      | 3 credits |
| BUS 360 | Marketing                             | 3 credits |
| BUS 390 | Introduction to Computers in Business | 3 credits |
|         |                                       | <u>12</u> |

**Area 2—Personnel Management**

- |          |                                     |           |
|----------|-------------------------------------|-----------|
| BUS 102  | Financial and Management Accounting | 3 credits |
| BUS 346  | Personnel Management                | 3 credits |
| BUS 348  | Industrial Relations                | 3 credits |
| ECON 320 | Labor Economics                     | 3 credits |
|          |                                     | <u>12</u> |

**Area 3—Accounting**

- |         |                            |           |
|---------|----------------------------|-----------|
| BUS 301 | Intermediate Accounting I  | 3 credits |
| BUS 302 | Intermediate Accounting II | 3 credits |
| BUS 305 | Cost Accounting            | 3 credits |
| BUS 320 | Business Finance           | 3 credits |
|         |                            | <u>12</u> |

**Area 4—Marketing and Distribution**

BUS	370	Managerial Marketing	3 credits
BUS	360	Marketing	3 credits
BUS	363	Advertising	3 credits
BUS	346	Personnel Management	3 credits
			<u>12</u>

**Area 5—Electronics**

EET	051	Analog Systems	4 credits
EET	061	Digital Systems	4 credits
EET	071	Micro-Computer Architecture and Design	4 credits
			<u>12</u>

**Area 6—Computer Science**

CS	160	Introduction to Programming: FORTRAN	3 credits
CS	161	Algorithms in Programming	3 credits
CS	268	Computer Organization and Planning	3 credits
CS	269	Machine and Assembler Language Programming	
	or		
CS	368	Data Structures	3 credits
			<u>12</u>

**Area 7—Quality Control**

CSQ	12-51	Basic Statistics and Inspection Sampling	2 credits
CSQ	13-51	Managing Quality Costs	2 credits
CSQ	14-51	Purchased Material Control	2 credits
CSQ	15-51	Inspection Tools and Gaging (elective)	
	or		
CSQ	16-51	Government and ASME Code Quality Requirements (elective)	2 credits
CSQ	17-51	Quality Problem Solving	2 credits
CSQ	18-51	Quality Audits	2 credits
			<u>12</u>

**OPTION #2: OCCUPATIONAL EXPERIENCE****A. General Education: 50 credit hours**

Humanities	6 credits
Fine and Applied Arts	6 credits
Mathematics and Science	18 credits
Social Sciences	6 credits
(ECON 101 - Economics I)	
Area 5: General	6 credits
Physical Education	2 credits
Electives (general)	6 credits
(1A 270 or IVE 360 -Modern Industry)	

**B. Technical: 51 credit hours**

- Core (15 credit hours)—(all 3 credit courses)
 

IT	300	Time and Motion Study
IT	310	Plant Layout and Material Handling
IT	330	Production Control
IT	340	Quality Control Fundamentals
- Technical Assessment (36 credit hours)
 

IVE	400	Occupational Experience, Verified (credits will be determined by rating plan)
IVE	440	Related Occupational Experiences (two options, total credits to be no more than the difference between those granted for IVE 400 and 36 credits)

**C. Education and Business: 27 credit hours**

- Core (15 credit hours)
 

IVE	300	Occupational and Trade Analysis
IVE	325	Conference Leading
ECON	102	Principles of Economics II
BUS	101	Principles of Financial Accounting
BUS	340	Principles of Management



2. Professional Concentration (Select one area)—12 credit hours

**Area 1—General**

BUS	102	Financial and Management Accounting	3 credits
BUS	320	Business Finance	3 credits
BUS	360	Marketing	3 credits
BUS	390	Introduction to Computers in Business	3 credits
			<u>12</u>

**Area 2—Personnel Management**

BUS	102	Financial and Management Accounting	3 credits
BUS	346	Personnel Management	3 credits
BUS	348	Industrial Relations	3 credits
ECON	320	Labor Economics	3 credits
			<u>12</u>

**Area 3—Accounting**

BUS	301	Intermediate Accounting I	3 credits
BUS	302	Intermediate Accounting II	3 credits
BUS	305	Cost Accounting	3 credits
BUS	320	Business Finance	3 credits
			<u>12</u>

**Area 4—Marketing and Distribution**

BUS	370	Managerial Marketing	3 credits
BUS	360	Marketing	3 credits
BUS	363	Advertising	3 credits
BUS	346	Personnel Management	3 credits
			<u>12</u>

**Area 5—Electronics**

EET	051	Analog Systems	4 credits
EET	061	Digital Systems	4 credits
EET	071	Micro-Computer Architecture and Design	4 credits
			<u>12</u>

**Area 6—Computer Science**

CS	160	Introduction to Programming: FORTRAN	3 credits
CS	161	Algorithms in Programming	3 credits
CS	268	Computer Organization and Planning	3 credits
CS	269	Machine and Assembler Language Programming	
or			
CS	368	Data Structures	3 credits
			<u>12</u>

**Area 7—Quality Control**

CSQ	12-51	Basic Statistics and Inspection Sampling	2 credits
CSQ	13-51	Managing Quality Costs	2 credits
CSQ	14-51	Purchased Material Control	2 credits
CSQ	15-51	Inspection Tools and Gaging (elective)	
or			
CSQ	16-51	Government and ASME Code Quality Requirements (elective)	2 credits
CSQ	17-51	Quality Problem Solving	2 credits
CSQ	18-51	Quality Audits	2 credits
			<u>12</u>

## VOCATIONAL/OCCUPATIONAL EDUCATION

A Bachelor of Science degree in Vocational Education will be granted upon successful completion of the following requirements:

**A. General Education: 47 credit hours**

Humanities	6 credits
Fine and Applied Arts	6 credits
Science and Mathematics	15 credits
IVE 360 Modern Industry	3 credits

Social Sciences	9 credits
Area 5: General	6 credits
Physical Education	2 credits

**B. Technical Assessment: 45 credit hours (maximum)**

IVE	400	Occupational Experience, Verified (credits will be determined by rating plan)
IVE	440	Related Occupational Experiences (two options, total credits to be no more than the difference between those granted for IVE 400 and 45 credits)

**C. Professional Education: 27 credit hours**

- Core (27 credit hours)—All courses 3 credits except as noted.
 

IVE	305	Curriculum Development in Vocational Education
EDU	333	Human Growth and Development
IVE	300	Occupational and Trade Analysis
IVE	310	Methods and Materials of Instruction in Vocational Education
IVE	340	Shop Organization and Management
IVE	350	Philosophy of Vocational Education
IVE	411	Measurement and Evaluation (vocational)
EDU	324	Student Teaching/Clinical Experiences (required for all candidates with less than three years of successful teaching experience—6 credits)
- Recommended Electives (all 3 credit courses)—may be elected to meet 120 credit requirement for degree, if needed
 

IVE	315	Learning and Programmed Instruction
IVE	320	Coordination of Cooperative Education
IVE	330	Principles and Practices of Vocational Guidance
IVE	382	Preparation of Instructional Materials
IVE	420	Trends in Vocational Education
IVE	450	Local Administration and Supervision of Vocational Education
IVE	455	Development of Technical Education
IVE	460	Independent Study in Vocational Education
EDU	314	Secondary School: Methods and Materials

## VOCATIONAL TECHNOLOGY

A Bachelor of Science degree in Vocational Technology will be granted upon successful completion of the following requirements:

**A. General Education: 47 credit hours**

Humanities	6 credits
Fine and Applied Arts	6 credits
Science and Mathematics	15 credits
IVE 360 Modern Industry	3 credits
Social Sciences	9 credits
Area 5: General	6 credits
Physical Education	2 credits

**B. Technical Assessment: 45 credit hours (maximum)**

IVE	400	Occupational Experience, Verified (credits will be determined by rating plan)
IVE	440	Related Occupational Experiences (two options, total credits to be no more than the difference between those granted for IVE 400 and 45 credits)

**C. Education and Business: 27 credit hours**

- Core (15 credit hours)—All 3 credit courses
 

IVE	300	Occupational and Trade Analysis
IVE	325	Conference Leading
ECON	102	Principles of Economics II
BUS	101	Principles of Financial Accounting
BUS	340	Principles of Management

2. Professional Concentration (Select one area)—12 credit hours

**Area 1—General (all 3 credits)**

BUS	102	Financial and Management Accounting
BUS	320	Business Finance
BUS	360	Marketing
BUS	390	Introduction to Computers in Business

**Area 2—Personnel Management (all 3 credits)**

BUS	102	Financial and Management Accounting
BUS	346	Personnel Management
BUS	348	Industrial Relations
ECON	320	Labor Economics

**Area 3—Accounting (all 3 credits)**

BUS	301	Intermediate Accounting I
BUS	302	Intermediate Accounting II
BUS	305	Cost Accounting
BUS	320	Business Finance

**Area 4—Marketing and Distribution (all 3 credits)**

BUS	370	Managerial Marketing
BUS	360	Marketing
BUS	363	Advertising
BUS	346	Personnel Management

## COURSE DESCRIPTIONS

### Courses in Industrial Education and Technology

**IA 102 Introduction to Technology**

An introductory study of industry and technology and their impact on our culture. Emphasis on the role of industrial education in developing an understanding of basic concepts and functions of industry and technology is stressed. The conceptual areas of energy and transportation, manufacturing and construction, and graphic communication are defined and developed. Required for all entering program majors. Lecture and lab. Cr 3.

**IA 210 Electronics Technology**

A study of the fundamental concepts of electronics. Laboratory experiences with typical circuits found in power supplies, amplifiers, and receivers. Use of test equipment including meters, the oscilloscope, signal generators and component checkers. Opportunity to practice soldering and printed circuit development is also provided. Cr 3.

**IA 220 Power Technology**

Power Technology is designed as an introduction to the broad field of power. Power is examined from the standpoints of generation, transmission, and application. Emphasis will be placed on understanding through study and manipulative experiences in the power laboratory. Experiences will include assembly and disassembly procedures, design and construction, testing, diagnosis, service, power measurements and safety considerations as applied to heat engines. Cr 3.

**IA 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.

**IA 241 Graphic Arts Technology**

A study of the common reproduction systems with significance in the graphic arts industries and technology. Designing, composing, reproduction, assembling, and finishing of printed materials utilizing conventional reproduction techniques. Emphasis on letter press, offset lithography, and screen printing, with related experiences in rubber stamp making, block printing, embossing, and photo enlarging. Cr 3.

**IA 250 Metal Technology**

A study of metal manufacturing industries. Introduction to concepts of designing, planning, fabrication, finishing, and distribution as they pertain to these industries. Selection, use, and care of equipment. Safety practices. Cr 3.

**IA 260 Wood Technology**

A basic course in wood technology, including wood properties, basic hand and machine tool processes, assembly and finishing. Cr 3.

**IA 270 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.

**IA 311 Communication Electronics**

A detailed study of communication circuits and applications; including receivers, transmitters, antennas, and satellites. Opportunity provided to obtain an Amateur Radio license. Prerequisite: IA 210 or permission of instructor. Cr 3.

**IA 312 Computer Technology**

Study of the function and applications of programmable calculators, micro-processors, and digital computers. Laboratory experiences relating to digital electronics and using the computing facilities of the University. Prerequisite: IA 210 or permission of instructor. Cr 3.

**IA 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: IA 210 or permission of instructor. Cr 3.

**IA 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 of, the 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: IA 220 or permission of instructor. Cr 3.

**IA 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: IA 321 or permission of instructor. Cr 3.

**IA 323 Energy and the Consumer**

Designed as an introduction to the efficient use of energy from the consumer standpoint. Areas explored include the use of energy to condition homes, commercial structures and other buildings, as well as the use of power in motive devices. Activities include analysis, testing and owner maintenance of these energy using devices. Prerequisite: IA 220 or permission of instructor. Cr 3.

**IA 331 Engineering Design Graphics**

Engineering Design Graphics will expose the student to 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: IA 231 or permission of instructor. Cr 3.

**IA 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: IA 331 or equivalent or permission of instructor. Cr 3.

**IA 333 Descriptive Geometry**

Analysis of the spatial relationship of points, lines, planes, and solids with orthographic and pictorial practice. Vector analysis, nomographs, charts, graphs, graphical arithmetic, truss systems with ap-

plication. Prerequisite: IA 331 or permission of instructor. Cr 3.

**IA 342 Photo Offset Lithography**

Theory and practice in lithographic and photo-offset printing with emphasis upon camera work, stripping, platemaking, presswork, and finishing. Photographic conversion of line and halftone copy and copy preparation are also included. Prerequisite: IA 241 or permission of instructor. Cr 3.

**IA 343 Communications Design**

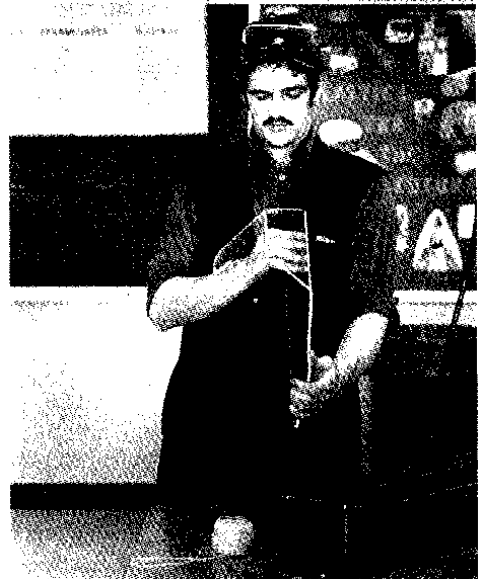
An introduction to the principles of layout and design in preparing camera copy for graphic reproduction. Emphasis on design elements and fundamentals, manuscript, and illustration preparation, graphic and photographic techniques, and production specifications. Prerequisite: IA 241 or permission of instructor. Cr 3.

**IA 351 Machining and Fabrication**

A study of metal industries concerned with electric and gas welding and machining techniques. Emphasis on process engineering. Individual and group problems. Laboratory and maintenance practices. Prerequisite: IA 250 or permission of instructor. Cr 3.

**IA 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: IA 351 or permission of instructor. Cr 3.

**IA 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: IA 260 or permission of instructor. Cr 3.

**IA 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: IA 260 or permission of instructor. Cr 3.

**IA 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: IA 260 or permission of instructor. Cr 3.

**IA 370 Crafts Technology**

Design and manufacture of products utilizing ceramics, leather, plastics, art metals, and other craft materials. Examination of artistic crafts for leisure-time activities and for adult programs. Individual and group research and problem solving. Prerequisite: IA 250 and 260, and permission of instructor. Cr 3.

**IA 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.

**IT 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: IA 210 or permission of instructor. Cr 3.

**IT 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: IA 210 or permission of instructor. Cr 3.

**IT 423 Fluid Power**

A study of fluids at work. Investigation of the theory and application of hydraulics and pneumatics in mechanics and industry. Design, construction, and maintenance of fluid power devices and systems. Cr 3.

**IT 424 Fluid Power Systems**

Application of fluid power and fluidic systems to manufacturing and construction industries. Prerequisite: IA 423 or permission of instructor. Cr 3.

**IT 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: IA 331 or permission of instructor. Cr 3.

**IT 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: IA 331 or permission of instructor. Cr 3.

**IT 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: IA 241 or permission of instructor. Cr 3.

**IT 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: IA 250 or permission of instructor. Cr 3.

**IT 472 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: IA 361 or 351 or permission of instructor. Cr 3.

**IA 490 Special Problems in Industrial Arts**

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 3.

**IAED 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: EDU 150. Cr 2.

**IAED 380 Curriculum Materials in Industrial Arts**

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, IA 270, 2.5 GPA and recommendation of faculty. Cr 3.

**IAED 381 Methods of Teaching Industrial Arts**

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, IA 270, 2.5 GPA and recommendation of faculty. Cr 3.

### **IT 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.

### **IT 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.

### **IT 320 Occupational Safety**

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.

### **IT 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.

### **IT 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.

### **IVE 300 Occupational and Trade Analysis**

Identification of occupational or trade fields, units, operations, and items of related information. Cr 3.

### **IVE 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: IVE 300. Cr 3.

### **IVE 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: IVE 300 and 305. Cr 3.

### **IVE 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.

### **IVE 315 Learning and Programmed Instruction**

The first application of the laboratory and scientific study of the learning process, including the prin-

ciples of learning which are derived from experimental study and which have provided a foundation for advances in the techniques of learning. Cr 3.

### **IVE 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.

### **IVE 325 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.

### **IVE 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.

### **IVE 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.

### **IVE 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: IVE 310 Cr 3.

### **IVE 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.

### **IVE 360 Modern Industry**

Evolution and structure of modern American industry and its impact upon the social, economic, and cultural milieu. Major areas and functions of industry explored include: personnel administration, research and development production, finance, marketing and service, industrial visitations and reports. Cr 3.

### **IVE 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.

### **IVE 400 Trade Experience, Verified**

(see IVE 440, Option No. 2 below.)  
(Credits will be determined by rating plan.)

### **IVE 402 Student Teaching**

Full-time student teaching during the senior year is provided for one semester under direct supervision in off-campus situations for all who meet requirements. Opportunities for student teaching include: Preschool, Early Elementary, 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 each year. Cr 12.

**IVE 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: IVE 300 and 310. Cr 3.

**IVE 420 Trends in Vocational Education**

Identification, analysis, and discussion of major problems and trends in vocational education. Cr 3.

**IVE 440 Related Occupational Experiences**

(Two options, total credits to be no more than the difference between those granted for IVE 400, and 45 credits.)

**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.

**OPTION NO. 2**

Approved employment with a company may qualify

a student under this option. Arrangements must be approved by the adviser 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 with a maximum of five 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.

For additional information concerning either option of IVE 440, consult your adviser.

**IVE 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.

**IVE 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.

**IVE 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 Business, Economics and Management

DEAN  
Duane Wood

## Department of Business Administration

Professors Findlay, Neveu, Sturner, Wood; Associate Professors B. Andrews, Chandler, Clarey, Hodson, Houlihan, Jagolinzer; Assistant Professors Boyle, Sanders.

Department of Associate Business Administration  
Chairman: Joel Gold, 118 Bedford Street, Portland.

Professor McKeil; Associate Professors S. Andrews, Gold, Gutmann, Purdy; Assistant Professors Carmichael, Coit, Kim, Lohmeyer.

Department of Economics  
Chairman: Robert C. McMahon, 227 Bonney Hall, Portland.

Professor Durgin; Associate Professors Bay, McMahon, Witherill; Assistant Professor Phillips.

The School of Business, Economics and Management offers a number of different programs to meet student needs. The School offers a two-year program in business administration leading to an Associate of Science in Business Administration degree. Four-year undergraduate programs are available in three areas of study: accounting, business administration, and economics. Upon successful completion of one of these fields the degree of Bachelor of Science in Business Administration or Economics is awarded. The School also provides a graduate program leading to the degree of Master of Business Administration (See Graduate Catalog for information).

## TWO-YEAR ASSOCIATE OF SCIENCE PROGRAM IN BUSINESS ADMINISTRATION

The associate program in business administration 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 at many other institutions.

Associate degree graduates are equipped for employment at the junior management level in many fields of business. Some fields of business that graduates have entered are accounting, bookkeeping, sales, retailing, banking, finance, real estate, hospitality services, and management trainee programs.

While the program emphasizes business, it contains some courses in liberal arts such as English composition, fine arts, social science, humanities, and mathematics. Options within the associate program include Accounting; Management; Marketing; Hotel, Motel, and Restaurant; and Real Estate (offered only in the evening).

The freshman year is offered on both the Gorham and the Portland campuses. The second year is partially offered in Gorham. Bus service to Portland allows Gorham campus residents to take courses in Portland.

The Hotel, Motel, and Restaurant option is a cooperative and coordinated two-year program developed jointly by Southern Maine Vocational Technical Institute and the ABA program. The third semester is offered only on the SMVTI campus in their Culinary School. Students are enrolled at USM but attend at SMVTI and must provide their own transportation. Students return to the USM campus to complete the fourth semester.

## ADMISSION REQUIREMENTS

Any high school student may pursue admission to the two-year associate degree program. A college preparatory background is not necessary. Applicants should complete the regular University of Maine application and specify the Associate in Business Administration program. Candidates also must complete the College Entrance Examination Board's general Scholastic Aptitude Test.



Students granted admission will be admitted to the School of Business, Economics, and Management as pre-associate degree students. To be admitted to the associate degree program within the School of Business, Economics and Management, a student must be admitted to the University of Southern Maine and:

1. have completed at least 23 semester hours with a minimum accumulative grade point average of 2.00.
2. have completed the following set of courses with a minimum accumulative grade point average of 2.00.

ABUS 101, ABUS 102, ABUS 111, ABUS 112,  
MS 010 or MS 011 or MS 109,  
ENG 010 or ENG 100.

An application for admission to the associate degree program in the School of Business, Economics, and Management should be completed and returned to the Dean's Office, School of Business, Economics and Management, 115 Luther Bonney Hall. An official transcript of credits earned at the University of Southern Maine and/or a copy of the transfer credit evaluation from other colleges or universities must be submitted with the application.

Although actual admission will not be approved until completion of at least 23 semester hours, required prerequisites, and required grade point averages, students may apply and be admitted pending completion of the current semester's work. These students would be allowed to register early for the following term. If admission requirements are not completed, their admission will be revoked and any enrollments in 200-level or above courses in the School of Business, Economics and Management will be cancelled.

Students who have not been admitted to an associate degree program within the School of Business, Economics and Management will be allowed to enroll in associate business courses in the School 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 are admitted to a baccalaureate program within the School of Business, Economics and Management. (Baccalaureate students *will not* receive credit for these courses toward their degree requirements except by prior approval of the Dean.)
3. They are admitted to the University of Southern Maine as degree candidates. (Baccalaureate students *will not* receive credit for these courses toward their degree except by approval of their Dean.)
4. They are admitted to the University of Southern Maine as non-degree students.

### **Curriculum for the Associate of Science in Business Administration Degree**

**Credit Hours**

<b>I.</b>	<b>General Education</b> .....	<b>18</b>
A.	ENG 010 Composition and ENG 019 Written Business Communication or ENG 100 College Writing and ENG 019 Written Business Communication .....	6
B.	MS 010 Elementary Algebra and MS 011 Intermediate Algebra, or MS 011 Intermediate Algebra and MS 109 Linear Systems, or MS 109 Linear Systems and MS 110 Elementary Mathematical Analysis .....	6
C.	Humanities Elective or Fine Arts Elective .....	3
D.	Social Science Elective .....	3
<b>II.</b>	<b>Associate Business Administration Core</b> .....	<b>27</b>
A.	ABUS 101 Principles of Economics I and ABUS 102 Principles of Economics II .....	6
B.	ABUS 111 Principles of Accounting I and ABUS 112 Principles of Accounting II .....	6
C.	ABUS 190 Introduction to Computers in Business .....	3
D.	ABUS 220 Business Finance I, ABUS 240 Principles of Management, ABUS 260 Marketing, ABUS 280 Business Law .....	12

<b>III. Associate Business Administration Option .....</b>	<b>15</b>
<b>A. Accounting Option:</b>	
1. ABUS 211 Financial and Managerial Accounting I .....	3
2. ABUS 212 Financial and Managerial Accounting II .....	3
3. ABUS Program Electives .....	6
4. General Elective.....	3
<b>B. Business Management Option:</b>	
1. ABUS 243 Problems of Small Business .....	3
2. ABUS 253 Human Relations in Business .....	3
3. ABUS Program Elective STGT .....	6
4. General Elective.....	3
<b>C. Business Marketing Option:</b>	
1. ABUS 243 Problems in Small Business .....	3
2. ABUS 264 Retailing .....	3
3. ABUS 267 Sales Management .....	3
4. ABUS Program Elective.....	3
5. General Elective.....	3
<b>D. Hotel, Motel and Restaurant Option: SMVTI SEMESTER</b>	
1. Front Office Management .....	3
2. Hotel Law .....	3
3. Food Fundamentals .....	3
4. Food and Beverage Control .....	3
5. Quality Food.....	3
<b>E. Real Estate Option:</b>	
1. ABUS 023 Real Estate Practice .....	3
2. ABUS 025 Real Estate Valuation .....	3
3. ABUS 222 Real Estate Law .....	3
4. ABUS 224 An Introduction to Appraising Real Property .....	3
5. ABUS 226 Principles of Real Estate Finance.....	3
Minimum Total .....	<u>60</u>

### **ABUS PROGRAM ELECTIVES**

Courses to fulfill the ABUS Program Electives required in some options above are to be selected from the following:

ABUS	023	Real Estate Practice
ABUS	025	Real Estate Valuation
ABUS	100	Introduction to Business
ABUS	211	Financial and Managerial Accounting I
ABUS	212	Financial and Managerial Accounting II
ABUS	222	Real Estate Law
ABUS	224	Introduction to Appraising Real Property
ABUS	226	Principles of Real Estate Finance
ABUS	227	Investment Management
ABUS	243	Problems in Small Business
ABUS	253	Human Relations in Business
ABUS	264	Retailing
ABUS	267	Sales Management
ABUS	291	Cobol I: Application and Documentation
ABUS	292	Cobol II: Advanced Programming Application
ABUS	294	RPG Programming
ABUS	295	Data Design and Handling
ABUS	296	Business Information Systems
ACC	202	Principles of Management Accounting
ACC	301	Intermediate Accounting I
BUS	190	Personal Finance
BUS	290	Introduction to Business Computers
MS	109	Linear Systems
MS	110	Elementary Mathematical Analysis
MS	211	Probability
MS	212	Statistics

## **FOUR-YEAR UNDERGRADUATE PROGRAMS IN BUSINESS ADMINISTRATION 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 general phases. First, the student acquires broad training in the arts and sciences for the necessary foundation upon which the student's 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. This is referred to as the "core" program and includes basic courses in accounting, introduction to computers, economics, finance, business law, marketing, management, operations research, and production/operations 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 21 credit hours beyond the core program.

The undergraduate program in economics provides a broad preparation for a variety of careers as well as for graduate study in economics, business administration or law. Economics is a social science and as such must be studied in the perspective of a broad training in the liberal arts and sciences. Within the economics program, courses are available in such fields as: economic analysis, quantitative methods, international economics and the economics of monetary and fiscal policy.

### **Applied Studies**

Within the four-year programs in accounting, business administration, and economics, the following opportunities are available to the student:

#### **COOPERATIVE EDUCATION PROGRAM**

The School of Business, Economics and Management offers a Cooperative Education Program in which students, while working in business or industry, may earn a maximum of 15 academic credits. This program combines the efforts of employers and educators in forming a meaningful educational experience in a wide range of areas including management, accounting, production and marketing. Firms engaged in the Cooperative Education Program represent fields such as banking, public utilities, manufacturing, retailing and public accounting. Its primary value is educational, although it does provide the opportunity for students to earn money for college expenses. Students who desire further information should contact the School of Business, Economics and Management.

#### **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 working as a team, or individually, counsel and advise, in cooperation with a faculty adviser 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 consulting in areas such as accounting, finance, management and marketing.

The course carries three hours of academic credit.

### **MINORS**

A minor in Economics is available to students in any major within the University. A description of requirements follows.

#### **Joint Programs with the College of Education and Department of Mathematics**

In cooperation with the College of Education, the School of Business, Economics and Management offers an economics minor leading to the degree of Bachelor of Science in Education for students in the College of Education who wish to prepare themselves to teach economics in public and private schools.

In cooperation with the Mathematics Department, a minor in mathematics is available on an optional basis to all economics majors. The optional mathematics minor is: 21 credit hours (not to include statistics courses), with 12 of the credit hours in MS 152, 153, and 252. The remaining 9 credit hours are to be selected from the following: MS 290, 352, 354, 366, 380, 460; CS 260.

## ADMISSION REQUIREMENTS

Students will be admitted to the University initially as pre-School of Business, Economics, and Management majors. To be admitted to a baccalaureate degree program within the School of Business, Economics and Management, a student must be admitted to the University of Southern Maine and:

1. have completed at least 53 semester hours with a minimum accumulative grade point average of 2.00.
2. have completed one of the following set of courses, depending upon the designated major, with a minimum accumulative grade point average of 2.00.
  - A. Accounting Major: ACC 201, ACC 301, BUS 280, BUS 290, ECON 201, ECON 202, MS 109, MS 110
  - B. Business Administration Major: ACC 201, ACC 202, BUS 280, BUS 290, ECON 201, ECON 202, MS 109, MS 110
  - C. Economics Major: ACC 201, ECON 201, ECON 202, MS 109 and MS 110 or MS 152 and MS 153

An application for admission to the baccalaureate degree program in the School of Business, Economics, and Management should be completed and returned to the Dean's Office, School of Business, Economics and Management, 115 Luther Bonney Hall. An official transcript of credits earned at the University of Southern Maine and/or a copy of the transfer credit evaluation from other colleges or universities must be submitted with the application.

Although actual admission will not be approved until completion of at least 53 semester hours, required prerequisites, and required grade point averages, students may apply and be admitted pending completion of the current semester's work. These students would be allowed to register early for the following term. 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.

Students who have not been admitted to a baccalaureate degree program within the School of Business, Economics and Management will be allowed to enroll in 300 level or above courses in the School on a space available basis (except for required 300 level courses for students admitted to the associate business degree programs) according to the following priorities:

1. They have declared a major which requires the course in its curriculum.
2. They have declared a minor in the Department of Economics (applies to Economics courses only).
3. They are juniors or seniors admitted to the University of Southern Maine as degree candidates.
4. They are admitted to the University of Southern Maine as non-degree students.

### TRANSFER FROM ASSOCIATE TO BACCALAUREATE LEVEL

To be admitted to a baccalaureate degree program within the School of Business, Economics, and Management from an associate degree program, a student must have:

1. Completed at least 53 semester credit hours with a minimum accumulative grade point average of:
  - a. at least a 2.40 in all associate business (ABUS) courses and in all associate level courses.
  - b. at least a 2.00 in all baccalaureate level courses.
2. Completed one of the following sets of courses or their equivalents depending upon the desired major:
  - a. Accounting Major: ACC 201, ACC 301, BUS 280, BUS 290, ECON 201, ECON 202, MS 109, MS 110.
  - b. Business Administration Major: ACC 201, ACC 202, BUS 280, BUS 290, ECON 201, ECON 202, MS 109, MS 110.
  - c. Economics Major: ACC 201, ECON 201, ECON 202, MS 109 and MS 110 or MS 152 and MS 153.

All baccalaureate courses (not associate business, ABUS, or associate level) in 2a, 2b, or 2c above must be completed with at least a 2.00 accumulative grade point average. Associate business (ABUS) courses must be completed with a minimum grade of "C-" to be considered equivalent to ACC 201, ACC 202, BUS 280, ECON 201, and ECON 202 listed in 2a, 2b, or 2c above.

To be admitted from an associate degree program to baccalaureate status as a pre-business, economics, and management student, an individual must have:

1. Completed at least 15 semester credit hours and no more than 53 semester credit hours with an accumulative grade point average of:
  - a. at least a 2.40 in all associate business (ABUS) courses and in all associate level courses.
  - b. at least a 2.00 in all baccalaureate level courses.
2. For those baccalaureate courses (not associate business, ABUS, or associate level) listed below which have been completed, at least an accumulative grade point average of 2.00 must be earned. Associate business (ABUS) courses must be completed with a minimum grade of "C-" to be considered equivalent to ACC 201, ACC 202, BUS 280, ECON 201, and ECON 202 below.

ACC 201, ACC 202, ACC 301, BUS 280, BUS 290, ECON 201, ECON 202, MS 109, MS 110, MS 152, MS 153

From the time of admission to baccalaureate status as a pre-business, economics, and management student, an individual must fulfill the remaining criteria for admission to a major in the same manner as any other baccalaureate student.

### **GENERAL GRADUATION REQUIREMENTS OF THE SCHOOL OF BUSINESS, ECONOMICS AND MANAGEMENT FOR ALL CANDIDATES FOR THE B.S. DEGREE**

1. All students are required to complete at least 120 units.
2. To be eligible for a B.S. degree in the baccalaureate programs in the School of Business, Economics, and Management, a student must have attained an accumulative grade point average of 2.00 or higher:
  - a. For all courses taken in baccalaureate programs at the University, and
  - b. For all baccalaureate courses in accounting (ACC), business (BUS), and economics (ECON).

### **REQUIREMENTS FOR A B.S. DEGREE IN BUSINESS ADMINISTRATION**

Satisfactory completion of the following curriculum will fulfill all of the requirements of the Core Curriculum at the University of Southern Maine. Please refer to the Core Curriculum Requirements section of this catalog.

	<b>Credit Hours</b>
<b>I. General Foundation Courses</b> .....	<b>49</b>
A. Proficiency (see University Core Curriculum).....	0
B. Humanities .....	12
1. English Composition* .....	3
2. Reasoning .....	3
3. Literature.....	3
4. Other Times/Other Cultures .....	3
C. Fine Arts.....	6
1. Performance-centered course .....	3
2. History-centered course .....	3
D. Social Science (Not to include ECON courses) .....	12
E. Mathematics .....	12
1. MS 109 Linear Systems .....	3
2. MS 110 Elementary Mathematical Analysis.....	3
3. MS 211 Probability .....	3
4. MS 212 Statistics .....	3
F. Natural Sciences (Lecture and Lab) .....	4
G. Interdisciplinary (See University Core Curriculum).....	3
<b>II. Core Requirements in Business and Economics</b> .....	<b>33</b>
A. Economics	
1. ECON 201 Principles of Economics I.....	3

2.	ECON 202	Principles of Economics II	3
3.	300-level or above	ECON courses	3
<b>B. Business</b>			
1.	ACC 201	Principles of Financial Accounting	3
2.	BUS 280	Business Law	3
3.	BUS 290	Introduction to Computers in Business	3
4.	BUS 320	Business Finance	3
5.	BUS 340	Principles of Management	3
6.	BUS 360	Marketing	3
7.	BUS 371	Operations Research/Management Science	3
8.	BUS 375	Production/Operations Management	3
<b>III. Major Field Requirements</b>			<b>21</b>
<b>A. Accounting Major</b>			
1.	ACC 301	Intermediate Accounting I	3
2.	ACC 302	Intermediate Accounting II	3
3.	ACC 303	Intermediate Accounting III	3
4.	ACC 305	Cost Accounting	3
5.	ACC 313	Federal Tax Reporting	3
6.	ACC 401	Advanced Accounting I	3
7.	ACC 410	Auditing	3
<b>B. Business Administration Major</b>			
1.	ACC 202	Principles of Management Accounting	3
2.	BUS 327	Investment Management	3
3.	BUS 450	Business Management and Policy	3
4.	BUS 367	Managerial Marketing	3
5.	BUS 452	Organizational Behavior	3
6.	300-level or above	ACC, BUS, or ECON electives	6
<b>IV. Electives</b>			<b>17</b>
Minimum Total Required			120

\*Students who fulfill the English Composition Competency of the University Core Curriculum without earning credits must complete 3 credits of Humanities electives (CLS, CPEN, ENG, FRE, GMN, GRK, LAT, PLY, SPN).

## REQUIREMENTS FOR A B.S. DEGREE IN ECONOMICS

Satisfactory completion of the following curriculum will fulfill all of the requirements of the Core Curriculum at the University of Southern Maine. A detailed description of the Core Curriculum Requirements can be found on page 22 of this catalog.

	<b>Credit Hours</b>
<b>I. General Foundation Courses</b>	<b>43</b>
A. Proficiency (see University Core Curriculum)	0
B. Humanities	12
1. English Composition*	3
2. Reasoning	3
3. Literature	3
4. Other Times/Other Cultures	3
C. Fine Arts	6
1. Performance-centered course	3
2. History-centered course	3
D. Social Science (Not to include ECON courses)	6
E. Mathematics	12
1. MS 109 Linear Systems	3
2. MS 110 Elementary Mathematical Analysis	3
3. MS 211 Probability	3
4. MS 212 Statistics	3

F. Natural Sciences (Lecture and Lab) .....	4
G. Interdisciplinary (See University Core Curriculum).....	3

An optional, more rigorous mathematics sequence is available to those students who desire it. Students who wish to take MS 152 Calculus A and MS 153 Calculus B can substitute those two courses for MS 109 and MS 110. They must still take MS 211 and MS 212. An optional minor in mathematics also is available.

<b>II. Core Requirements in Economics and Business.....</b>	<b>36</b>
A. Business	
1. ACC 201 Principles of Financial Accounting .....	3
B. Economics	
1. ECON 201 Principles of Economics I.....	3
2. ECON 202 Principles of Economics II .....	3
3. ECON 301 Macroeconomic Analysis .....	3
4. ECON 302 Microeconomic Analysis .....	3
5. ECON electives which may include	
GEOG 303 and HIST 338 .....	21
<b>III. Electives .....</b>	<b>41</b>
Minimum Total Required .....	120

\*Students who fulfill the English Composition Competency of the University Core Curriculum without earning credits must complete 3 credits of Humanities electives (CLS, CPEN, ENG, FRE, GMN, GRK, LAT, PLY, SPN).

## REQUIREMENTS FOR A MINOR IN ECONOMICS

### Criteria for Admission and Retention of Students

To gain admission, students must be in good standing at the University of Southern Maine and submit a signed Economics Minor Authorization Form to the Dean of the School of Business, Economics, and Management, 115 Luther Bonney Hall. The requirements below must be completed with at least a 2.00 accumulative grade point average.

	<b>Credit Hours</b>
ECON 201 Principles of Economics I.....	3
ECON 202 Principles of Economics II .....	3
ECON 301 Macroeconomic Analysis .....	3
ECON 302 Microeconomic Analysis.....	3
MS 120 Introduction to Statistics or MS 212 Statistics or	
MS 362 Probability and Statistics I .....	3
Six additional credits of 300-level or above ECON electives .....	6
<b>Total</b>	<b>21</b>

## REQUIREMENTS FOR AN ECONOMICS MINOR IN THE COLLEGE OF EDUCATION

### Criteria for Admission and Retention of Students

Admission to the Education program by the College of Education. The requirements below must be completed with at least a 2.00 accumulative grade point average.

#### Elementary Education - Economics Minor

	<b>Credit Hours</b>
ECON 201 Principles of Economics I.....	3
ECON 202 Principles of Economics II .....	3
ECON 350 Comparative Economic Systems .....	3
ECED 300 Economic Concepts and Resource Materials for Educators.....	3
Nine Additional Credits in Economics Electives .....	9
<b>Total</b>	<b>21</b>

# 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, 115 Luther Bonney Hall, Portland Campus. Please refer to the Graduate Programs page in this catalog, and to the USM Graduate Catalog for further information.

## COURSE DESCRIPTIONS

### ASSOCIATE DEGREE PROGRAM

#### **ABUS 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.

#### **ABUS 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.

#### **ABUS 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.

#### **ABUS 111 Principles of Accounting I**

An introduction to the accounting cycle, working papers, and financial statements. A practical emphasis on accounting methodology with coverage of inventory control, cash control, depreciation of plant assets and payroll. (not for SBEM baccalaureate)

Cr 3.

#### **ABUS 112 Principles of Accounting II**

A study of the procedures of accounting for owner's equity, long-term investments and the cost of manufacturing goods. the proprietorship, partnership, and corporation accounting techniques are developed in a practical approach. Prerequisite: ABUS 111. (not for SBEM baccalaureate)

Cr 3.

#### **ABUS 190 Introduction to Computers in Business**

This course focuses on the role of the computer as an

aid in managerial decision making. Computer operation and programming fundamentals including flowcharting and program writing in one of the common computer programming languages emphasizes business applications. Provides a basic knowledge of computer concepts; "hands on" problem solving with the computer; and the impact of computers on the business world. Required for ABA program. Transfers to baccalaureate program, but does not replace BUS 290.

Cr 3.

#### **ABUS 211 Financial and Managerial Accounting I**

A detailed study of such accounting topics as special journals, subsidiary ledgers, voucher register, financial statements, inventory, depreciation, payroll and computer applications with an emphasis upon the practical aspect of accounting procedures. Prerequisites: ABUS 111, ABUS 112.

Cr 3.

#### **ABUS 212 Financial and Managerial Accounting II**

The course deals with the uses of accounting data for financial and management control. Topics include the analysis of costs, the preparation of comprehensive budgets, and the study of decision-making processes. Prerequisites: ABUS 211.

Cr 3.

#### **ABUS 220 Business Finance I**

A study of the promotion, organization, and financing of the single proprietorship, partnership, and corporation. Such topics as fund flows, ratio analysis, break-even analysis and leverage, time value of money concepts, cost of capital and capital budgeting are examined. Prerequisites: ABUS 101, ABUS 102, ABUS 111 and ABUS 112.

Cr 3.

#### **ABUS 222 Real Estate Law**

A study of real property law in general and Maine law in particular, land titles, acquisition and transfer, methods of ownership, rights of husband and wife, rights of landlord and tenant, easements, fixtures, land descriptions, mortgages, deeds, taxes, contracts, legal elements of brokerage relationship, selected environmental and land use regulations, coastal island registry, physical regulations of subdivisions, zoning and selected federal laws. (Completion of this course with a grade of 75, or better, provides one-third of an approved course of study for those who wish to prepare for the State of Maine real estate brokers license examination.) Offered only in the evening.

Cr 3.

#### **ABUS 023 Real Estate Practice**

The course reviews the basic functions of the practicing real estate broker. Discussed are topics such as form of business organization, listing and sales procedures, financing, advertising, federal regulation through the Fair Housing Act and Truth-in-Lending Law, sources of financing, closing procedures, Realtor Code of Ethics, an introduction to tax aspects on real estate transaction. (Completion of



this course with a 75, or better, provides one-third of an approved course of study for those who wish to prepare for the State of Maine real estate brokers license examination.) Offered only in the evening.

Cr 3.

### **ABUS 224 An Introduction to Appraising Real Property**

This is an intensive course covering all real property appraising concepts and the technical skills employed in their applications to residential property. The course is designed for the beginning appraiser, real estate broker, lender, builder, and assessor. Included is a summary introduction to real estate economics and urban land studies. This is the first of three courses accepted by the Society of Real Estate Appraisers for credit toward a professional designation. Offered only in the evening.

Cr 3.

### **ABUS 225 Real Estate Valuation**

This course develops a working knowledge of real estate value and valuation, a familiarity with construction methods and terms, working knowledge of the laws, codes and ordinances which control the development of real estate. (Completion of this course with a grade of 75, or better, provides one third of an approved course of study for those who wish to prepare for the State of Maine real estate brokers license examination.) Offered only in the evening.

Cr 3.

### **ABUS 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

### **ABUS 227 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: ABUS 101, ABUS 102, ABUS 111, and ABUS 112.

Cr 3.

### **ABUS 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: ABUS 101, and ABUS 102.

Cr 3.

### **ABUS 243 Problems In Small Business**

A study of the aspects of management that relate most specifically to the management of small business. The course covers areas of business planning, development, and operation which the prospective owner/manager must consider seriously early in his/her thinking. During the course each student will develop a comprehensive small business plan.

Prerequisites: ABUS 102, ABUS 111, ABUS 112, ABUS 260.

Cr 3.

### **ABUS 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: ABUS 240.

Cr 3.

### **ABUS 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: ABUS 102.

Cr 3.

### **ABUS 264 Retailing**

Study of the retail distribution structure and of the problems involved in successful store operation under current conditions. Prerequisites: ABUS 260.

Cr 3.

### **ABUS 267 Sales Management**

Analysis of the problems facing marketing management in formulating sales policy and in managing the sales organization. Prerequisite: ABUS 260.

Cr 3.

### **ABUS 280 Business Law**

This course, an introduction to the study of business law, includes origins of the law, the conduct of a civil lawsuit, contract, agency, and property law, the law of negotiable instruments and secured transactions, and an overview of partnership and corporation law.

Cr 3.

### **ABUS 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. Prerequisites: ABUS 111, ABUS 190 or permission of the Dean.

Cr 3.

### **ABUS 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, structured programming, output formats, and program optimization. Prerequisites: A 3.1 accumulative grade point average in ABUS 190 and ABUS 291 or permission of the Dean.

Cr 3.

### **ABUS 294 RPG Programming**

An introduction to programming in the RPG language, its focus is on the use of RPG to manipulate files in the process of producing necessary business reports. Programming assignments will focus on report specifications, file handling, and editing. Prerequisites: ABUS 111, ABUS 190 or permission of the Dean.

Cr 3.

### **ABUS 295 Data Design and Handling**

This course covers the techniques for the effective management of data in a business information system. Content includes I/O hardware, file formats, access methods, fixed and variable fields, searching, sorting sequencing, labelling, directories, and data base concepts. Prerequisite: ABUS 292.

Cr 3.

### **ABUS 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: ABUS 240, ABUS 292 or permission of the Dean.

Cr 3.

## 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 Financial and 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, changes in financial position, 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.) 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, income tax allocation, and earnings per share. Prerequisite: ACC 301.

### **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 changes in financial position, and miscellaneous other topics. Prerequisite: ACC 302. Cr 3.

### **ACC 305 Cost Accounting**

Concepts and analytical procedures necessary to the generation of accounting data for management planning and control and product costing. Emphasis is on job costing, process costing, standard costs, and variance analysis and direct costing. Prerequisite: ACC 202 or ACC 301. Cr 3.

### **ACC 313 Federal Tax Reporting**

An overview of federal tax laws as they affect individuals, partnerships, corporations, and related topics. Prerequisite: ACC 201. 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. Prerequisite: ACC 303. 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. 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. Prerequisite: ACC 303 and senior standing, or permission of instructor. Cr 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 Business Law**

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, labor law, and bankruptcy. This course is intended to provide a broad overview of business law and the Uniform Commercial Code. Cr 3.

### **BUS 281 Business Law II**

An opportunity to continue the study of business law and to thoroughly evaluate 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 or ABUS 280 with permission of instructor. Cr 3.

### **BUS 290 Introduction to Computers in Business**

The role of the computer as an aid in managerial decision-making. Computer operation and programming fundamentals including flow charting and program writing in one of the common computer program languages emphasizing business applications. Cr 3.

### **BUS 320 Business Finance**

This course deals with the promotion, organization, and financing of the single proprietorship, partnership, and corporation. It also utilizes advanced cases and problems related to the above topics. Prerequisites: ECON 201, ECON 202, ACC 201, ACC 202 or ACC 301, MS 212. 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. Prerequisite: BUS 320. Cr 3.

### **BUS 340 Principles of Management**

A comprehensive survey of all phases of management in public and private sectors. The influences of

human, social and political factors are interspersed with the treatment of management's structural and technical processes. Analyses focus on such themes as planning, decision-making, organizational design, supervisory skills, communications, and information systems. Prerequisites: ECON 201 and ECON 202. 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. Prerequisite: BUS 340 or permission of instructor. 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. Prerequisite: BUS 340 or permission of instructor. Cr 3.

#### **BUS 349 Women and Management**

For both men and women in business, education, and the social services, etc. 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 or permission of the instructor. Cr 3.

#### **BUS 360 Marketing**

Explores the "marketing concept" and considers the effect of product place, promotion and price on strategic planning. Investigates the components of market research, target marketing, positioning and other related issues. Prerequisites: ACC 201, ECON 201, ECON 202. 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. Prerequisite: BUS 360. Cr 3.

#### **BUS 367 Marketing Problems**

Emphasizes the integration of marketing strategies with other activities of a corporation. Through such activities as case studies and simulation exercises as well as careful analysis of current marketing literature, students are provided with the opportunity to develop decision-making skills in the marketing area. Prerequisite: BUS 360. Cr 3.

#### **BUS 369 Marketing Research**

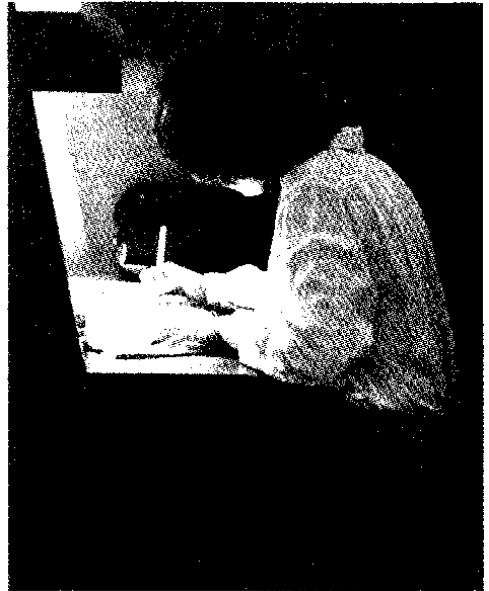
Consideration of market research as a management planning and evaluative tool. Emphasis on problem formulation, exploratory research, research design, basic observational and sampling requirements, data analysis, interpretation and sampling. Prerequisites: BUS360and MS212. Cr 3.

#### **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 realworld business situations. Topical coverage includes decision analysis, inventory models, network analysis, simulation, queuing models, applied stochastic processes, dynamic programming and non-linear programming. Prerequisites: MS 109, 110, 211, 212. 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. Prerequisites: MS 109, 110, 211, 212. 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 CS 160, MS 211. Cr 3.

#### **BUS 395 Cooperative Education - Business Administration I**

The student has the opportunity to relate academic knowledge to practical experience in the business world. The University makes arrangements with certain institutions and/or industries to employ students to fill specific jobs on a semester basis. The student's work is in a related field, and the work experience increases in difficulty and responsibility as the student progresses through the academic curriculum. The work experiences are approved in ad-

vance by the faculty. Open to sophomores, juniors, and seniors in the School of Business, Economics and Management with permission. Cr 1-5.

**BUS 396 Cooperative Education - Business Administration II**

Open to sophomores, juniors, and seniors in the School of Business, Economics and Management with permission. Prerequisite: BUS 395. Cr 1-5.

**BUS 397 Cooperative Education - Business Administration III**

Open to juniors and seniors in the School of Business, Economics and Management with permission. Prerequisite: BUS 396. 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 or permission of the instructor. 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 375. 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 or permission of instructor. 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: senior standing and permission of the instructor and chairman of the department. 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: open to qualified juniors and seniors with approval. Cr 3.

**BUS 499 Special Topics in Business and Management**

**ECED 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. (Offered through independent study.) Cr 3.

**ECON 201 Principles of Economics I**

A theoretical analysis of the basic characteristics, institutions, 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. Cr 3.

**ECON 202 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. Cr 3.

**ECON 301 Macroeconomic Analysis**

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: ECON 201 and ECON 202. Cr 3.

**ECON 302 Microeconomic Analysis**

Price, income, and employment theory as tools in the study of economics. Prerequisites: ECON 201 and ECON 202. Cr 3.

**ECON 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: ECON 201, ECON 202; MS 109 and 110 or MS 152 and MS 153. Cr 3.

**ECON 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: ECON 201, ECON 202, and MS 212. Cr 3.

**ECON 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: ECON 201 and ECON 202. Cr 3.

**ECON 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: ECON 201 and ECON 202.

Cr 3.

**ECON 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: ECON 201, ECON 202. Cr 3.

**ECON 350 Comparative Economic Systems**

The structures and operating principles of the major contemporary economic systems are examined and compared. Prerequisite: ECON 201. Cr 3.

**ECON 351 Economic Systems 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: ECON 201 and ECON 202 Cr 3.

**ECON 360 Economic Development**

The theories and practices of interregional and international economic development. Special attention is given to developmental problems of emerging nations. Prerequisite: ECON 201. Cr 3.

**ECON 370 International Trade**

The principles and practices of international trade and finance are thoroughly treated. Special emphasis is given to current trends in the international economy and to United States commercial policy. Prerequisites: ECON 201 and ECON 202. Cr 3.

**ECON 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: ECON 201 and ECON 202. Cr 3.

**ECON 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: ECON 201, ECON 202. Cr 3.

**ECON 390 Energy Economics**

The purpose of this course is to assist the student in analyzing the "energy crisis" from an economic perspective. Topics to be covered include: the concepts of energy and efficiency, the role energy plays in the U.S. economy, stocks of energy resources and the role of the government in creating and/or curing the crisis. Various energy related policies will be reviewed. Some time will be devoted to an analysis of alternate energy sources and technologies. Prerequisites: ECON 201 and ECON 202. Cr 3.

**ECON 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 student's formal course work. Prerequisites: nine hours of economics. Cr 3.

**ECON 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 Registrar). Cr 1-3.

# School of Nursing

## DEAN

Audrey J. Conley

## ASSOCIATE DEAN

Carla H. Mariano

## UNDERGRADUATE FACULTY

Bailow, Judith	Assistant Professor	*Kelly, Kathleen	Assistant Professor
Bergstrom, Linda	Instructor	*MacPherson, Kathleen	Associate Professor
Burson, Janet	Assistant Professor	Martin, Rita	Instructor
Cotton, Jean	Associate Professor	Mirochnick, Linda	Instructor
Curtis, Nancy	Assistant Professor	Nicoll, Leslie	Instructor
Czupryna, Louise	Assistant Professor	Normandeau, Jeanne	Associate Professor
Dorbacker, Beatrice	Associate Professor	Peake-Godin, Helen	Instructor
Drew, Judith	Assistant Professor	Pearson, Karen	Instructor
Dunn, Caroline	Instructor	*Putnam, Sandra	Assistant Professor
Ellis, Ann	Associate Professor	Rodgers, Marianne	Instructor
Fournier, Margaret	Associate Professor	Shoobs, Dorothy	Associate Professor
Garmey, Madeleine	Lecturer	Stowell, Elizabeth	Instructor
*Greenleaf, Nancy	Assistant Professor	Tiffany, Jill	Instructor
Gustin, Constance	Instructor	Tipton, Meredith	Instructor
Healy, Phyllis	Assistant Professor	Tryon, Phyllis	Associate Professor
Heidema, Charlotte	Instructor	Tukey, Geraldine	Associate Professor
Henderson, Joyann	Assistant Professor	Ullman, Sallie	Instructor
Jensen, Helena	Associate Professor	Walton, Rowena	Instructor

\*Graduate and Undergraduate Programs

Murphy, Kathleen	Assistant Professor (Program Coordinator, Fort Kent Campus)
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SCHOOL OF NURSING LEARNING RESOURCE LABORATORY: Sarah Whitney, Director

ADJUNCT FACULTY: Elizabeth Doty, Eleanor Irish, Linda Pearson, Mary Ann Rost, Lynn Schwarz, Louise Thurber.

Programs offered by the School of Nursing are a baccalaureate program which leads to the Bachelor of Science degree with a major in nursing, a Graduate Program which leads to a Master of Science degree with a major in nursing.

The aims of the School of Nursing's Undergraduate Program are to:

1. provide a baccalaureate education in nursing within a state institution for higher education
2. prepare a beginning professional nurse for practice in a variety of settings
3. prepare a beginning professional nurse who can respond to community health needs
4. provide a foundation for advanced study in nursing

The aims of the School of Nursing's Graduate Program are to:

1. prepare professional nurses for roles of leadership in nursing practice, education and administration
2. provide a foundation for doctoral study in nursing

## SCHOOL OF NURSING PHILOSOPHY

The Philosophy of the School of Nursing incorporates these beliefs:

Human beings\* are biological, psychological, social and cultural beings who are growing and developing throughout the life cycle. The stages of growth and development are interrelated; yet, within each stage, human beings have unique characteristics, needs and demands. Human beings have the right to set their own goals and the potential to work toward their attainment. The ability to do this is enhanced by an awareness and acceptance of self. Human beings are holistic and interact dynamically with the environment which encompasses the family, groups, community, and world in which they live. This environment includes factors that facilitate or inhibit human beings' ability to grow and develop.

Optimal health exists when human beings are free to grow and develop toward their own goals with minimum possible inhibiting factors and maximum facilitating factors. Health is relative to individuals in the context of the society and culture in which they live. When human beings function in an integrated manner to maximize full potential, their optimal level of health is being achieved.

Nursing's goal is to enhance human beings' ability to grow and develop by maximizing facilitating factors and minimizing inhibiting factors. Nursing's emerging roles include those of health promotion, maintenance and restoration. The nursing process provides the framework for implementing these emerging roles.

Nursing and scientific knowledge are rapidly expanding; societal needs are constantly changing; and health care delivery systems are in constant flux. Therefore, the nurse must function in a flexible way and develop proficiency with the use of the nursing process in order to practice nursing responsibly and accountably in a changing society. Since research is an important method of acquiring and refining knowledge, the nurse must be able to utilize research as a basis for professional nursing practice.

Learning is a process of interaction between the individual and the environment which results in affective, cognitive and psychomotor changes. The learning relationship between the teacher and student requires a shared commitment to clearly identified program and course objectives. The learner has an opportunity to develop personal learning objectives within the framework of the program and to select learning experiences in order to meet program objectives. Throughout the entire learning process, evaluation is shared by the teacher and learner.

The graduate will function as a client advocate. The graduate will be prepared to deliver nursing care in a variety of settings in both urban and rural areas. The graduate will utilize leadership skills in collaborating with consumers and health professionals to improve the health of society by effecting needed changes in health care delivery.

It is essential that each graduate define a nursing philosophy which is a synthesis of personal beliefs, the beliefs of the School and of the profession. The nurse is a contributing member of the community both personally and professionally and is committed to continued learning and professional development.

\*Human beings - Individuals, Families, Groups and Communities

## **BACCALAUREATE PROGRAM IN NURSING**

The University of Southern Maine School of Nursing offers a baccalaureate nursing program with an upper division major for professional study. Each nursing student must complete a minimum of 120 credits which include nursing, general education, liberal arts and other supportive 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 R.N. licensure. The School of Nursing is approved by the Maine State Board of Nursing and is accredited by the National League for Nursing.

## **ADMISSION POLICY**

Students interested in pursuing a Bachelor of Science with a major in nursing first must be admitted to the University, and upon admission will be designated as pre-nursing candidates. Admission to the University of Southern Maine is through the Admissions Office of the University, and prospective students should refer to the sections in this catalog on admissions policies required by the University. Admission of pre-nursing candidates to the School of Nursing is determined by the School of Nursing Admissions Committee. Pre-nursing candidates will be evaluated for admission to the School of Nursing based on the completed application, grade point average, letters of reference, a personal interview, and successful completion of all prerequisites (63-64 credits) as outlined in the School of Nursing section of this catalog entitled Prerequisites for the Nursing Major. Current standardized test scores may be requested by the School of Nursing Admissions Committee.

## **ADMISSION PROCEDURE**

Applicants for admission to the School of Nursing must:

1. have successfully completed a minimum of 30 credits in the prescribed prerequisites
2. file an application with the School of Nursing by November 15 of the year prior to desired admission to the upper-division nursing major

To complete the application file, the following documents must be received by the School of Nursing Admissions Committee prior to January 28 of the year in which admission to the School of Nursing is desired:

1. official transcripts of all college courses completed
2. three letters of reference
3. completed medical history and Physical Examination Form

Courses from other colleges or universities are evaluated by the Admissions Office of the University of Southern Maine for transfer credits.

**APPLICATIONS CANNOT BE PROCESSED UNTIL ALL THE ABOVE DOCUMENTS HAVE BEEN RECEIVED.**

After receipt of all the appropriate documents, the School of Nursing Admissions Committee reviews the applicant's credentials. A personal interview is then scheduled. When the committee has acted upon an application and forwarded a recommendation to the Dean of the School of Nursing, the applicant is advised of the decision prior to pre-registration for the fall semester. All admissions to the School of Nursing are contingent upon successful completion of all prerequisites with a minimum grade point average of 2.25.

### **CHALLENGE POLICY**

After admission to the School of Nursing, students may wish to challenge selected upper-division courses. The following policy must be followed in each case:

1. The applicant must:
  - a. meet general admission requirements of the University of Southern Maine
  - b. complete the prerequisites for the nursing major with a minimum grade point average of 2.25
  - c. be admitted to the University of Southern Maine School of Nursing
  - d. be a registered nurse who has graduated from an NLN accredited program
2. A challenge exam may be taken only once for each course
3. When challenging courses which include a clinical component:
  - a. there will be a written exam
  - b. there will be a clinical exam
  - c. the written exam must be passed prior to taking the clinical exam
  - d. each component of the challenge exam must be passed satisfactorily; otherwise no credit will be given
4. The student who fails the challenge exam may take the course in keeping with the University policy on repeating courses; the applicant who subsequently fails the course will be withdrawn from the School of Nursing
5. Both credit and quality points will appear on the transcript of a student who challenges select upper-division courses

### **PREREQUISITES FOR THE NURSING MAJOR**

Prerequisite courses to the upper-division nursing major consist of general education courses required by the University, physical and behavioral sciences, humanities, and fine arts. Pre-nursing candidates must achieve a minimum of 2.25 cumulative grade point average in order to be eligible to apply for admission to the upper-division nursing major. "D" grades or below are not acceptable in courses cited as specific requirements for the nursing major.

**NOTE:** Upon applying to the upper-division nursing major, pre-nursing candidates must have completed their science requirements within the last eight (8) years.

#### **Prerequisite Courses**

General Biology (must include lab component)	4 credits
Human Anatomy & Physiology (must include lab component)	4-5 credits
Chemistry (Organic & Bio-Chemistry - each must include lab component)	8 credits
Introduction to Statistics (any department)	3 credits
Microbiology (must include lab component)	4-5 credits
Human Nutrition (must include metabolic component)	3 credits
General Psychology	3 credits
General Sociology	3 credits
Social Science Elective (Political Science, Psychology, Sociology, Anthropology)	3 credits
Human Growth & Development (entire life span preferred)	3 credits
Humanities and Fine Arts	12 credits
General Electives (any area but nursing)	12 credits*
<b>TOTAL:</b>	<b>63-64 credits</b>

\*only 3 credits may be in Physical Education or Recreation & Leisure Studies.



The distribution of fine arts and humanities is not specified but left to the discretion of the core requirements on each campus. At U.S.M., students are required to take 6 credit hours of each.

## UPPER DIVISION NURSING MAJOR

The upper-division nursing major (junior and senior years) is offered at the University of Southern Maine and consists of clinical nursing courses, courses supportive to nursing content, 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, families, groups of clients, and communities on all spectra of the health continuum. Inpatient and outpatient hospital settings, community health agencies, community experiences, nursing homes, schools and industries are used for clinical experience.

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.

Nursing majors must purchase uniforms for approximately \$100 before entry into the junior year. In addition, a \$15 fee per semester (junior and senior years) is required as a clinical fee. 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 year clinical experiences. Professional Liability Insurance and Health Insurance are strongly recommended for students in the School of Nursing.

### JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
NSG 300 Nursing Process I	9	NSG 305 Nursing Process II	8
BIO 345 Pathophysiology	3	NSG 302 Pharmacology	3

### SENIOR YEAR

First Semester	Credits	Second Semester	Credits
NSG 400 Nursing Process III	7	NSG 405 Nursing Process IV	6
NSG 401 Health-Related Research	2-3	NSG 406 Community Health	3
NSG 402 Patterns of Emotional Disorders	3	NSG 407 Leadership in Health Care	5

**\*SIX (6) CREDITS OF GENERAL ELECTIVE CREDITS AND THREE (3) CREDITS OF NURSING ELECTIVES CREDITS ARE REQUIRED DURING THE UPPER-DIVISION FOR GRADUATION WITH A MAJOR IN NURSING.**

**NOTE:** Students who successfully challenge select upper-division courses must take a minimum of one (1) Nursing Elective.

## ACADEMIC POLICIES - UPPER-DIVISION NURSING MAJOR

**Retention/Progression:** it is expected that students remain with their class. To do so, the student must maintain a class standing with a cumulative grade-point average of 2.00. The courses in the nursing major are sequential and must be passed with a minimum grade of "C" before progressing to the next level. A student who is unable to maintain this average will be either suspended from the University in accordance with University policies or required to change his/her major to a different program.

**Repeating:** a "D" grade in a major nursing course interferes with or prevents the student from progressing to the next level. A student who receives a "D" grade in a nursing course but is able to maintain a cumulative grade point average of 2.00 will be allowed to repeat the course one time when that course is offered again. A student who receives a "D" grade but is unable to maintain a cumulative grade point average of 2.00 will either be suspended from the University in accordance with University policies or required to change his/her major to a different program.

### Grading System:

A = 4.00 quality points = 90-100

B+ = 3.33 quality points = 86-89

B = 3.00 quality points = 80-85

C+ = 2.33 quality points = 76-79

C = 2.00 quality points = 70-75

D = 1.00 quality points = 60-69

Not acceptable for progression

F = 0.00 quality points = below 60

Automatic School of Nursing withdrawal

**Incomplete Grades:** A temporary grade given by the faculty when a student, because of *extraordinary* circumstances, has failed to complete course requirements in a nursing course. The courses in the nursing major are sequential; therefore, the incomplete grade must be replaced by a letter grade before progressing to the next level. Failure to progress sequentially in the program will result in either suspension from the University in accordance with University policies or a requirement to change the major to a different program.

**Leave:** A student who has a health problem or other personal problem may apply for a leave of absence. With the consideration of progression policies and the availability of spaces, each case will be reviewed for readmission on an individual basis.

**Withdrawal:** A student may elect to withdraw from a major nursing course following the University policy. With the consideration of progression policies and availability of spaces, each case will be reviewed for readmission on an individual basis. If the student wishes to withdraw from the nursing program, the student will either be suspended from the University in accordance with University policies or required to change his/her major to a different program.

**Administrative Withdrawal:** A student may be withdrawn from the School of Nursing for other than academic reasons.

**Graduation Requirements:** To be eligible for graduation the student must have successfully completed all requirements, and a minimum of 120 credit hours (121-123 credit hours is the general requirement for completion of the baccalaureate degree with a major in nursing) with a cumulative grade point average of at least 2.00.

**Student Appeal Policy:** A student who feels there is a just cause or an academic grievance regarding final course grades or unfair discrimination may initiate an academic appeal. A copy of the policy and procedure is available in the Dean's office.

NOTE: Major nursing courses refer to all nursing courses offered in the upper division with the exception of nursing electives and independent studies.

## UNIVERSITY OF SOUTHERN MAINE SCHOOL OF NURSING BACCALAUREATE PROGRAM AT EXTENDED SITES

As of September 1983, the University of Southern Maine School of Nursing Baccalaureate Program will extend to the University of Maine at Orono and the University of Maine at Fort Kent.

### MASTER DEGREE PROGRAM

The Master of Science Degree (MS) program offers students both an advanced practice component focusing upon families in crisis and a choice of a functional role component in either education, administration or primary care practitioner role. The following are integral elements of the Masters Degree Program in Nursing: advanced health assessment; communication, health promotion and leadership skills; organizational and system analysis skills with application to health care facilities and educational institutions; emphasis on social, political and economic factors influencing health and health care delivery; research and theory development in nursing; and an holistic, multidisciplinary approach to learning and practice. Refer to USM Graduate Catalog for details.

### COURSE DESCRIPTIONS

#### **NSG 300 Nursing Process I**

Introduces the student to basic cognitive, affective and psychomotor skills fundamental to nursing practice. Utilization of the nursing process is emphasized to assist individuals to promote and maintain optimal health. Concepts and selected theories provide a basis for understanding the factors which facilitate and/or inhibit the growth and development of human beings. Didactic classroom and experiential learning in the Learning Resource Lab provides the opportunity to practice and develop basic skills which will be applied in selected clinical settings. Prerequisites: junior level standing in the SON. Concurrent: BIO 345. Cr 9.

#### **NSG 302 Pharmacology**

Basic concepts in pharmacology including major drug categories, drug interactions, the use of the nursing process in the therapeutic administration of drugs, legal implications and the physical and

psychological effects of drugs on various age groups will be emphasized. Prerequisites: Human Anatomy and Physiology Recommended: BIO 345. Concurrent: NSG 305. Open to other than nursing students with permission of faculty. Cr 3.

#### **NSG 305 Nursing Process II**

Utilizes the nursing process in promotion, restoration and maintenance of health with individuals and families experiencing short-term alterations in health which do not significantly disrupt potential but which do require nursing and/or other intervention. Prerequisites: NSG 300, BIO 345. Concurrent: NSG 302. Cr 8.

#### **Nursing Elective**

Study of a selected area in nursing. Open to other than nursing students with permission of faculty. Cr 3.

#### **NSG 395 Nursing Independent Study**

Individualized study in an area of nursing with the permission of the instructor. Cr 2-3.

### **NSG 400 Nursing Process III**

Utilizes the nursing process in promotion, restoration and maintenance of health with individuals, families, and groups experiencing long-term alterations in health which significantly disrupt potential and require nursing and/or other intervention. Collaborates and consults with health team members in a variety of settings. Prerequisites: NSG 302, 305. Concurrent: NSG 401, 402. Cr 7.

### **NSG 401 Health-Related Research**

Various types and methods of research, concepts basic to the research process including sampling, validity, reliability and ethics will be introduced. The student evaluates and utilizes health-related research and considers implications for nursing practice and the nurse as a researcher. (Students may register for one extra credit if they plan to participate in a selected research project individually or as part of a group.) Prerequisites: statistics. Open to other than nursing students with permission of faculty. Cr 2-3.

### **NSG 402 Patterns of Emotional Disorders**

Psychopathology is examined in relation to various bio-psycho-social and cultural factors. Traditional and contemporary treatment models will be discussed. Prerequisites: Growth and Development, General Psychology. Open to other than nursing students with permission of faculty. Cr 3.

### **NSG 405 Nursing Process IV**

Utilizes the nursing process in the promotion, restoration and maintenance of health with individuals, families and groups experiencing depleted health, ie. alterations resulting in actual or predictable disintegration requiring complex and/or other intervention. The community as a client is also emphasized in this course. Collaborates and consults with health team members in any setting. Prerequisites: NSG 400, 401, 402. Concurrent: NSG 406, 407. Cr 6.

### **NSG 406 Community Health**

Introduces concepts and principles basic to the development and maintenance of community health.

Emphasis is on population aggregates in the community as the unit of service. The epidemiological process is stressed in surveying current major health issues. Concurrent: NSG 405, 407. Open to other than nursing students with permission of faculty. Cr 3.

### **NSG 407 Leadership in Health Care**

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: NSG 400, 401, 402. Concurrent: NSG 405, 406. Cr 5.

### **Nursing Elective**

Study of a selected area in nursing. Open to other than nursing students with permission of faculty. Cr 3.

### **NSG 495 Nursing Independent Study**

Individualized study in an area of nursing with the permission of the instructor. Cr 2-3.

### **FN 300 Child Nutrition Seminar**

A seminar dealing with nutritional needs of the child. Discussion will focus on the critical evaluation of and reporting of current research articles describing nutritional requirements of the growing child. Permission of faculty will be needed. Cr 3.

### **FN 352 Human Nutrition**

A course designed to show wherein the given nutrients serve to meet the metabolic processes required for life. Herein a physiologic and biochemical approach is used. Prerequisites: Anatomy and Physiology; General and Organic Chemistry; Biochemistry.

NOTE: For challenge information of FN 352, contact Helena Jensen. Challenge arrangements must be made by October 1. Cr 3.



# Division of Basic Studies

## DIRECTOR

George P. Connick

## COORDINATOR, DEVELOPMENTAL STUDIES

Robert Lemelin

## COORDINATOR, INSTRUCTIONAL SYSTEMS

Caroline Hendry

The Division of Basic Studies, an academic unit of the University established in 1973, has the responsibility for offering courses and associate degree programs in a number of off-campus locations in Southern Maine.

## ADMISSIONS INFORMATION

Interested persons holding a high school diploma (or its equivalent) or who are 18 years of age or older may enroll. To obtain information or literature regarding any of the available programs contact the Centers listed below.

## LOCATIONS WHERE ASSOCIATE DEGREES AND COURSES ARE OFFERED

	SACO	SANFORD	INTOWN LEARNING CENTER	YORK AREA
Selected Studies	x	x	x	x
Liberal Arts - 2 yr.	x	x	x	x
Business Admin. - 2 yr.	x	x		x
Human Services (Mental Health, Developmental Studies, Gerontology)	x	x	x	x

Note: Students are advised to consult an academic counselor regarding transfer of credits to four-year degree programs.

### Bath

Beginning in the fall, 1982, the University of Maine at Augusta and the University of Southern Maine (through the Division of Basic Studies) will coordinate course offerings in the town of Bath. A full range of counseling and student services will be provided and classes will be held in local facilities. Degree program offerings are still under consideration. Those interested in information about the counseling services, financial aid, courses and degree programs should contact:

Debbie Meehan  
Bath Center  
72 Front Street  
Bath, Maine 04530  
442-7070

**Portland (In-Town Learning Center)** The Division of Basic Studies offers two programs, Selected Studies and Human Services (Gerontology, Developmental Disabilities and Mental Health), at the In-Town Learning Center (ILC), located at 68 High Street in the heart of downtown Portland. In-Town Learning Center offerings meet the needs of adult learners who would otherwise find the doors to higher education closed to them. Support services are provided, and a program in Developmental Studies (English, Math, and Basic Learning Skills) has been carefully worked out, tailor-made to meet the needs of the adult learner. For more information about the In-Town Learning Center and programs contact:

Susan Silvernail  
In-Town Learning Center  
68 High Street  
Portland, Maine 04101  
Telephone 780-4124 - 780-4115

### Biddeford/Saco, Sanford, and York (York County Community College Services)

The Division of Basic Studies, in cooperation with Southern Maine Vocational-Technical Institute, offers off-campus programs through York County Community College Services (YCCCS). This joint venture provides less than baccalaureate degree opportunities and comprehensive academic counseling services for residents of York County. With centers located in Biddeford/Saco, Sanford, and the York area, the community college offers a variety of associate degree options.

Programs currently available from the University of Southern Maine are Liberal Arts, Selected Studies, Business Administration, Therapeutic Recreation (1st semester), and Human Services (Gerontology, Developmental Disabilities and Mental Health). Southern Maine Vocational-Technical Institute has available programs and/or selected courses in Law Enforcement, Building Construction and Electronics Technology (1st semester).

Courses are offered in the morning, late afternoon and evening for the convenience of students who work or who wish to attend college part-time. Arrangements made with private colleges, local high schools, churches, and public libraries allow courses to be offered in leased facilities at times convenient for students.

## York County Community College Services

### **Biddeford/Saco Center**

**Nate Greene**

Fairfield Street  
Saco, Maine 04072  
Tel. 282-4111

### **Sanford Center**

**Lorraine Masure**

195 Main Street  
Sanford, Maine 04073  
Tel. 324-6012

### **York Area Courses**

**Tom Vose**

195 Main Street  
Sanford, Maine 04073  
Tel. 324-6012

## DEVELOPMENTAL STUDIES

### **ENG 009 Writing Lab**

Designed to help students who write at the basic skills level. Students work on as many writing assignments as are needed to reach college competency and to work at the next composition level (ENG 010). Students in Selected Studies can apply credits toward their degree. This course is taken on a pass-fail basis, and it is a prerequisite for ENG 010 for those students who are deficient. Four-year students may be required by the English Department to take this course before taking College Writing (Eng 100). Cr 3.

### **MS 009 Math Skills Lab**

The Math Lab is a course designed for students who need to review math fundamentals. Instruction takes into consideration the individual differences people have in learning. This course is offered in a self-pacing format with a great deal of individual assistance. Pass-fail. Cr 3.

### **USM 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. (Pass/Fail; this course may be counted for elective credit only.) Enrollment open only to freshmen with less than 25 credits. Cr 3.

## PROGRAMS Selected Studies

This program is designed for:

1. Those students who wish to have maximum flexibility in planning their own degree program and have specific educational or career goals, but do not have the required educational background for admission to an occupational or parallel degree program.
2. Students who may not yet have determined their educational or career objectives at the time of admission.

**ADMISSION:** Open to high school graduates and persons 18 years or older.

### ELIGIBILITY TO CHANGE FROM SELECTED STUDIES TO ANOTHER MAJOR/SCHOOL/COLLEGE

To be eligible to change from the Selected Studies program to another program of the University of Southern Maine, the following criteria must be met.

#### **To change from Selected Studies to another associate degree program:**

1. A grade point average of at least 2.00.
2. Completion of at least nine semester hours of graded courses, not including pass/fail courses.
3. Completion of the transfer requirements for admission to the program to which the student wishes to change.

#### **To change from Selected Studies to a baccalaureate degree program in the College of Arts and Sciences and College of Education:**

1. A grade point average of at least 2.00
2. Completion of at least 15 semester hours of graded courses not including pass/fail courses.

3. Completion of at least one course in each of three areas of the USM General Education Requirements.
4. Demonstrated "Writing Proficiency" (USM Catalog).
5. Completion of the transfer requirements for admission to the program to which the student wishes to change.

**To change from Selected Studies to a baccalaureate degree program in the School of Business, Economics, and Management:**

Students who have a 3.0 cumulative grade point average at the end of one year (30 credits) or a 2.4 at the end of two years (60 credits), may transfer to the four-year Business Administration program.

### Selected Studies

Courses	CURRICULUM	Credit Hours
<b>REQUIRED</b>		
ENG 010	must be taken during	3
MS 011	1st year of study	3
USM 100		3
Humanities elective		3
Fine Arts elective		3
Social Science elective		3
Science elective		3
<b>ELECTIVE</b>		
Free electives		<u>39</u>
<b>TOTAL CREDIT HOURS</b>		<b>60</b>

In the selection of core requirements and electives, students should refer to program requirements of the college at which they intend to pursue a baccalaureate degree.

### Human Service Programs

The Human Service Career programs (offered through the University of Southern Maine and extended from Bangor Community College) are designed to provide liberal arts education and professional courses (including supervised practicum in area of the student's program option). Graduates will be prepared for entry and middle-level positions within the human service delivery system.

The Human Service programs are approved by the National Council for Standards in Human Service Education.

#### DEVELOPMENTAL DISABILITIES

The Developmental Disabilities option of the Human Service program is designed to prepare individuals to work primarily in direct services under professional supervision within an area of specialization, such as: mental retardation, cerebral palsy, epilepsy, autism or other handicapping conditions.

#### HUMAN SERVICES: DEVELOPMENTAL DISABILITIES PROGRAM REQUIREMENTS

Courses		Credit Hours
<b>Semester I</b>		
HSV 050	Introduction to Human Services	3
HSV 010	Group Processes	3
ENG 010	Composition	3
PSY 101	General Psychology I	3
SOC 100	Introduction to Sociology	<u>3</u>
		15
<b>Semester II</b>		
HSV 020	Human Service Practicum	4
HSV 041	Nature and Needs of the Developmentally Disabled	3
BIO 019	Biological Basis of Human Activity	3
THE 170	Public Speaking or	3
COM 171	Interpersonal Communication	
PSY 102	General Psychology II	<u>3</u>
		16

**Semester III**

HSV	011	Psycho-Socio Evaluation	3
HSV	012	Interviewing-Counseling	3
HIST	200	Reference, Research & Report Writing	3
HSV	021	Human Service Practicum	4
PSY	220	Developmental Psychology	<u>3</u>
			16

**Semester IV**

HSV	043	Working with the Developmentally Disabled	3
HSV	023	Human Service Practicum	6
HSV	044	Behavior Modification Techniques	3
HSV	045	Resource Awareness and Utilization	<u>3</u>
			15
		TOTAL CREDIT HOURS	<u>62</u>

**GERONTOLOGY**

This program is designed to prepare the graduate for a number of existing and new entry-level jobs in community based and institutional programs for the elderly.

**HUMAN SERVICES: GERONTOLOGY  
PROGRAM REQUIREMENTS**

<b>Courses</b>			<b>Credit Hours</b>
<b>Semester I</b>			
ENG	010	Composition	3
PSY	101	Introduction to Psychology	3
SOC	100	Introduction to Sociology	3
HSV	050	Introduction to Human Services	3
HSV	010	Group Process	<u>3</u>
			15
<b>Semester II</b>			
HSV	013	Introduction to Gerontology	3
HSV	020	Human Service Practicum	4
BIO	019	Biological Basis of Human Activity	3
THE	170	Public Speaking or	3
COM	171	Interpersonal Communication	
PSY	102	General Psychology II	<u>3</u>
			16
<b>Semester III</b>			
HSV	012	Interviewing-Counseling	3
HIST	200	Reference, Research and Report Writing	3
HSV	015	Physiology and Pathology of the Elderly	3
HSV	021	Human Service Practicum	4
PSY	220	Developmental Psychology	<u>3</u>
			16
<b>Semester IV</b>			
HSV	023	Human Service Practicum	6
HSV	025	Activity/Recreation Leadership	2
SWE	275	Developmental Services to the Elderly	3
SOC	150	Social Issues	3
		Elective	<u>3</u>
			17
		TOTAL CREDIT HOURS	<u>64</u>

**MENTAL HEALTH**

This program is offered to meet the needs for middle-level workers in the field of mental health. It is designed to provide the graduate with skills to work, under professional supervision, in a variety of mental health settings — mental health institutes, comprehensive mental health centers, and public and private human service community agencies.

**HUMAN SERVICES: MENTAL HEALTH  
PROGRAM REQUIREMENTS**

<b>Courses</b>	<b>Credit Hours</b>
<b>Semester I</b>	
HSV 050 Introduction to Human Services	3
HSV 010 Group Process	3
ENG 010 Composition	3
PSY 101 General Psychology I	3
SOC 100 Introduction to Sociology	3
	15
<b>Semester II</b>	
HSV 020 Human Service Practicum	4
BIO 019 Biological Basis of Human Activity	3
THE 170 Public Speaking or	3
COM 171 Interpersonal Communication	
PSY 102 General Psychology II	3
Elective	3
	16
<b>Semester III</b>	
HSV 011 Psycho-Socio Evaluation	3
HSV 012 Interviewing-Counseling	3
HIST 200 Reference, Research & Report Writing	3
HSV 021 Human Service Practicum	4
PSY 220 Developmental Psychology	3
	16
<b>Semester IV</b>	
HSV 023 Human Service Practicum	6
HSV 030 Senior Seminar	3
SOC 150 Social Issues	3
PSY 333 Psychopathology	3
	15
<b>TOTAL CREDIT HOURS</b>	<b>62</b>

**COURSE DESCRIPTIONS**

**ADS 016 Biosurvival**

This course presents material to help the individual develop basic skills and knowledge for a greater enjoyment of the out-of-doors and, if necessary, a better chance of survival. The course consists of lectures, demonstrations, student participation and individual projects. Besides written exams, students will be expected to participate in a cooking demonstration involving common wild edibles. A 48-hour survival experience will be offered as an optional part of the work. Examples of topics covered are: alternatives in firemaking, shelter and clothing, traps and tracks, survival tools and first aid. There is a strong emphasis on the proper identification and use of wild plants for food. Cr 3.

**ADS 017 Marine Biology of the Southern Coast of Maine**

This course, a basic though intensive introduction to the animals and plants commonly found along the Maine coast, will emphasize field collections and laboratory identification. Trips to rocky coast, mud flat, sand beach and tidal marsh habitats are planned. This will permit students to collect, describe, identify and compare the organisms found in several distinct marine habitats. In this way, students will develop an understanding of how different environmental characteristics select the dif-

ferent animal and plant communities found. classroom discussions, audio-visual presentations and lab exercises will supplement the field work where appropriate. Car-pooling for field trips will be arranged in class. Cr 3.

**BIO 015 Wildlife Biology**

The course covers principles of wildlife management and its relationship to ecological principles, federal land agencies, and land use planning. The role of law enforcement and politics is discussed. Special areas of interest include waterfowl, exotic and specific habitat, and management of a few representative species. Cr 3.

**ENG 010 Composition**

Students will meet regularly in a lab setting to sharpen their rhetorical skills. The assignments require them to work their writing through a revision process and to use the instructor as a critic for their writing. Recommended for students in two-year programs. Prerequisites: ENG 009 or satisfactory completion of an approved test. Cr 3.

**ENG 019 Written Business Communication**

Training in the writing of effective business reports, letters, and related material. Prerequisites: ENG 010. Cr 3.



### **HSV 010 Group Processes**

Directed to an understanding of group functioning and leadership. This course considers factors involved in group cohesions and group conflict. Attention is given to communication systems, emotional styles, and role functions in groups. Techniques of role playing, psychodrama, and socio-drama are considered. During the laboratory experience, the small group studies itself and puts communication and sensitivity skills into practice. Prerequisite: PSY. 101 Cr3.

### **HSV 012 Interviewing-Counseling**

An examination of and practice with the techniques of psychological interviewing for the purposes of gathering data and/or modifying human behavior. Current theories and techniques of counseling and psychotherapy will be studied and experience with interviewing and counseling techniques will be gained under professional supervision. Lec. 2. Cr3.

### **HSV 013 Introduction to Gerontology**

An introduction to the theory and practice of gerontology. This course will (1) trace the historic, legal and political aspects of services to the elderly; (2) consider the economic, physiological, psychological adjustments of older persons, as well as the transportation, communication, learning and social aspects; (3) give consideration to the unique cultural, social and communication needs of ethnic minorities, and (4) provide understanding of the role and function of a gerontology specialist. Cr3.

### **HSV 014 Behavioral Research Methodology**

An introduction to the nature, methods, principles and techniques of behavioral research. Emphasis is placed upon understanding the journal reports of research and the potential application of research to human services. Cr3.

### **HSV 015 Physiology and Pathology of Elderly**

This course is designed to familiarize the student with the developmental, physiological process of aging and commonly occurring pathophysiology of the elderly. The signs and symptoms, diagnosis, treatment and prognosis of geriatric illnesses are presented. Emergency treatment procedures and referral mechanisms are discussed. Cr3.

### **HSV 020 Practicum in Human Service**

This course offers experiential learning in three of the functional human service areas (e.g. mental health, mental retardation, gerontology, chemical addiction, child development, etc.). The student begins to practice skills of objective observing, reporting and recording, interpersonal relationships, interviewing and other helping relationship skills under professional supervision. In a small weekly group seminar with the course instructor, each student should acquire an indepth understanding of the human service delivery system, and explore topics such as confidentiality, ethics, professionalism, values, and human rights and dignity. Each student will spend five weeks within three different agencies. Prerequisites: open only to students who are HSV degree candidates; HSV 011 and permission of the instructor. Lec. 2, 8 hours field experience per week. Cr4.

### **HSV 021 Practicum in Human Service**

This second practicum course is designed to offer

students experiential learning within the human service options of their choice. This course begins a specialization within a functional area (e.g., gerontology, chemical addiction counseling, mental health) as a generalist. Students are exposed to the delivery system of their human service options with consideration to four elements of the system: prevention, non-residential care, residential care, and aftercare services. Within this context students continue to refine helping relationship skills and acquire functional specialization. A weekly conference will provide interaction sessions in which students will share experiences, and demonstrate acquisition of helping skills. Students will be assigned to two human service agencies within their service option. Prerequisites: open only to students who are HSV degree candidates, HSV 020 and permission of the instructor. Lec. 2, 8 hours field experience per week. Cr4.

### **HSV 023 Practicum in Human Service**

This is the third sequential experiential learning practicum course. Students spend the entire semester in a human service agency related to their chosen functional area. Students gain a deeper understanding of the delivery system within their specialty area and an increased sophistication in helping relationship skills. A weekly seminar provides interaction sessions in which the student will share experiences and demonstrate the acquisition of the helping and change-agent skills. Prerequisites: open only to students who are HSV degree candidates; HSV 021 and permission of the instructor. Lec. 2, 16 hours field experience. Cr6.

### **HSV 025 Activity/Recreational Leadership**

This course introduces the student to the procedures, practices, and aids for organizing and conducting programs to maintain the physical, social, and emotional functioning of the elderly. A variety of existing programs sponsored by a range of public and private agencies, organizations, and community groups will be examined in order to understand the underlying goals that guide those in position to direct and influence services provided for the elderly. Prerequisite: HSV 013 or permission of the instructor. Cr2.

### **HSV 030 Senior Seminar**

Students select from a series to be arranged by the coordinator each spring semester. Topics may include such specialties as behavioral engineering, community service methods, mental health methods, activity therapies, corrections. Professionals with specialties in topic area will teach the seminars. Reading, discussions and practical experience integrated in the seminar. Prerequisite: open to program majors, or with permission. Cr3.

### **HSV 041 Nature and Needs of the Developmentally Disabled**

An overview of developmental disabilities. The physiological, psychological, educational, and familiar characteristics of developmental disabilities. Mental retardation, cerebral palsy, epilepsy, autism, and other handicapping conditions closely related to mental retardation. The historical development of treatment for the developmentally disabled. Current definitions and concepts. The practicum site will be used to assist in the identifica-

tion and knowledge of the developmentally disabled. Prerequisite: HSV 050 and/or permission of instructor. Cr 3.

#### **HSV 043 Methods of Working with the Developmentally Disabled**

Methods to improve physical, social, educational, and perceptual-motor skills of the developmentally disabled. Recreational and leisure time resources within the community. Social adjustment of the developmentally disabled. Basic tenets of personal and social guidance. Students expected to directly apply course content to their practicum setting. Prerequisite: HSV 041 and/or permission of instructor. Cr 3.

#### **HSV 044 Behavior Modification Techniques**

Concepts and techniques of behavior modification as it applies to the developmentally disabled. The practicum site supplements classroom experience. Identifying and recording behavior, outlining consequences, and identifying and implementing procedures to modify behavior. Students expected to develop modification program which could effectively be used at their practicum site. Cr 3.

#### **HSV 045 Resource Awareness and Utilization**

Community, regional, state and federal resources discussed with the goal of establishing a better awareness of resource utilization. Interrelationships between public and private programs, development of program financing, and discussion of program models. Current provisions and programs relative to educational planning. Development of an in-depth awareness of sheltered workshop and boarding-home programs. Guest lecturers from local and state agencies. Open discussion. Cr 3.

#### **HSV 050 Introduction to Human Services**

A non-theoretical course designed as an orientation to the national, state and local human service delivery system. The human service specialty areas, the service models, and the human service profession will be presented. Inter-relationships within all human service and health professions will be discussed in addition to professional ethics, confidentiality and relevant professional terminology. Basic helping skills will be presented and practiced. This course is designed to afford the student more confidence entering the practicum situation and is a prerequisite to all practicum placements. Cr 3.



# Division of Public Service

**Director**  
William G. Mortensen

**Administrative Associate**  
Ellen M. Trask

The Division of Public Service is an administrative unit of the University of Southern Maine. Its central mission is to develop, implement, coordinate and support the institution's public service non-credit programs. The division offers a wide range of non-credit activities which are programmatically sound, are well presented and administered, and which meet the professional and personal needs of the residents of southern Maine and other appropriate locations. In addition, the Division of Public Service assists the USM marketing effort by coordinating the publications and word processing functions.

As the coordinating unit for USM non-credit activities, the Division of Public Service provides centralized planning, policy formulation, data reporting, and acts as an information unit and communication clearing house. Non-credit programs at USM are significant and diverse. During the 1981/82 year over 24,000 people participated in conferences, seminars, workshops, short courses, briefings, certificate programs, symposia, etc.

## **“CEU” Award System**

The Division of Public Service administers the USM CEU Award System. One CEU is awarded for 10 hours of participation in an approved program of continuing education. Students completing professional courses receive Continuing Education Unit (CEU) awards rather than semester-hour credit on grade sheets and permanent records. The CEU is a nationally accepted unit of measurement applicable to non-credit 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.

The CEU system for grade sheets and permanent records has been officially adopted by the New England Council of Deans and Directors of Continuing Education.

The following information is included by department to indicate the variety and scope of USM's non-credit 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 96 Falmouth Street, Portland, Maine 04103, 780-4092.

## **DEPARTMENT OF COMMUNITY PROGRAMS**

**Director**  
Joanne K. Doyle

**Program Specialist**  
Judith Burwell

**Administrative Staff Associate**  
Lucille Sheppard

The Department of Community Programs is an administrative and program unit within the Division of Public Service. Its central mission is to create, develop, implement and administer non-credit programs. The department offers a wide range of programs including professional development in selected areas, personal enrichment, and career and skill enhancement. Program activities are directed to areas not defined by other USM units or may be in cooperation with other units of the institution. The role of the Department is to bring the University and community closer together in a mutually beneficial manner through the development of timely and relevant non-credit programs. Department programs reach out to people from various segments of the southern Maine community including people of different ages.

Community Programs are designed generally 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 and locations.

Courses are taught by full-time and part-time instructors who are recognized experts in their fields. Instruction is usually personalized so that participants can apply the knowledge and skills obtained to their specific problem. Lecture or seminar leaders may be secured locally or are often recruited from other areas of the United States and Canada.

Because of the rapidly changing programs within the personal enrichment category (B), only professional certificate programs are described in this catalog. Please contact the Department of Community Programs, 96 Falmouth Street, Portland, Maine 04103 (Telephone: 207-780-4045) for specific information regarding programs and courses of study in both categories A and B.

- A. Professional programs (carry CEU's):
  - Certificate Program for Legal Assistants
  - Certificate Program in Quality Control
  - Certificate Program in Small Business Management
  
- B. Personal enrichment areas of study:
 

Career development	Self help
Interpersonal skills	Arts
Creative skills	Parapsychology
Business related	Personal enhancement

### **Certificate Program in Quality Control**

This program is planned to benefit all personnel engaged in controlling quality and maintaining quality assurance, including working crew leaders as well as supervisory personnel and managers. Courses will be of special benefit to manufacturing and product engineers, purchasing agents, production control personnel, material expeditors, inspectors and operators interested in improving their skills and contributing to the manufacture of quality products.

Courses are designed to be flexible and practical. Topics are selected to provide basic tools and techniques for setting up new quality assurance systems, or improving the effectiveness of already existing programs.

The class size in all subjects is limited depending upon the type of course offered.

The following subjects are offered in the program:

CSQ	11-51	(12 wks)	Total Quality Control
CSQ	12-51	(12 wks)	Basic Statistics and Inspection Sampling
CSQ	13-51	(10 wks)	Managing Quality Costs
CSQ	14-51	( 8 wks)	Purchased Material Control
CSQ	15-51	( 6 wks)	Inspection Tools and Gaging
CSQ	16-51	( 6 wks)	Govt. Specifications & ASME Code Quality Requirements
CSQ	17-51	( 4 wks)	Quality Problem Solving
CSQ	18-51	( 4 wks)	Quality Audits
CSQ	19-51	( 4-6 wks)	ASQC Certification Preparation
CSQ	20-51	( 8 wks)	Basic Principles of Effective Technical Writing
CSQ	21-51	(10 wks)	Introduction to Geometric Dimensioning and Tolerancing
CSM	28-51	( 8 wks)	Human Relations

### **Certificate Program in Small Business Management**

This program is designed to meet the specific needs of the small business community. Techniques transmitted should enable the small business entrepreneur to operate a more efficient business, develop the potential of employees, and plan more effective strategies for the future.

Subjects of the program will vary as current topics emerge. For the most part, courses will be directed to the practical as opposed to the theoretical aspects of current business practices. A "Certificate of Completion" will be awarded to those who successfully complete a total of 12 CEU's. Some of the courses available on a rotating basis include:

CSSB	10-51	Managing a Small Business
CSSB	11-51	Utilizing Financial Tools in Decision-Making
CSSB	28-51	Human Relations
CSSB	14-51	Advertising and Marketing Techniques
CSSB	15-51	Effective Personnel Practices
CSSB	16-51	Increasing Sales and Profits

## Certificate Program for Legal Assistants

This para-professional program will provide a sequence of training leading to a certificate in the broad range of legal services known as general practice, in addition to more in-depth study in several areas of specialization.

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. Those who do not plan to earn the certificate but wish to take selected courses need not apply for admission. The curriculum for the beginning level 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

Required seminars: Orientation to the Legal Assistant Profession, Interpersonal Skills and Interview Techniques

### LEVEL II

In the second level, advanced courses in several areas of specialization are offered on a demand basis. Internships are also available with the approval of the Program Coordinator.

## DEPARTMENT OF CONFERENCES

Director  
Kevin P. Russell

The purpose of the Department of Conferences is to provide meeting planning, development and coordination services to groups desiring to utilize the University's conference facilities and services. Also, the Department occasionally provides workshops and seminars which bring together qualified resource people to share new information and ideas, upgrade professional skills or to impart new skills and techniques.

The Department's conference planning and management services are extended to professional and trade associations, governmental agencies, private business and community groups and organizations. Programs can be conducted "in house" on either of our campuses, 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 USM conference services, the program initiator is free to concentrate fully on program content. The Department of Conferences also offers a University Speaker's Bureau service to the southern Maine community.

During the summer and, to a lesser extent, during the academic year, USM's classrooms, auditoriums, recreational facilities, and dining services are available for use by conference groups. University residence halls are also available for housing during the mid-May to end-of-August period.

All meetings are within easy reach of major educational facilities on both our campuses. Our two modern libraries allow conference participants ready access to reference materials on nearly any topic. The University also maintains a modern, well-equipped audio-visual department, along with easy access to our own print shop.

Our conference staff is capable of assisting in all phases of planning and conducting a program. The department can perform some or all of these services:

- Assisting in determining program content, format and identification of resources
- Developing the conference budget, receiving and accounting for all fees, and paying all expenses

- Arranging for the design, printing, and mailing of conference announcements, brochures and programs
- Securing and arranging for all physical facilities such as meeting rooms, dining, lodging and exhibit space
- Arranging for support and ancillary services, including audio-visual equipment, receptions, meals, parking, transportation, photographs and special excursions, tours and recreation
- Assisting in formal registration, to include collection of registration fees
- Issuing of name tags, conference packets, maps and related conference materials
- Coordinating with the University's Public Information Office to secure maximum media coverage of the program and promotion of the conference; conducting and preparing appropriate post-conference evaluation, reports and financial statements.

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 of 1983 will include the USM Soccer School, "SWISH" Basketball Camp, "STIX" Field Hockey Camp, and Southern Maine Music Camp. The Department also offers 2-4 weeks of Elderhostel each summer for people over 60 years of age.

For information about these and other conference services at USM please call 207-780-4045.

## **DEPARTMENT OF CONTINUING EDUCATION FOR NURSING AND HEALTH PROFESSIONS**

Director  
Mary Ann Rost

The Department of Continuing Education for Nursing and Health Professions is an administrative and program unit within the Division of Public Service. Its central mission is to plan, develop, implement and evaluate non-credit offerings designed in a variety of formats to meet the learning needs of nurses and other health professionals at various locations throughout the state of Maine. Program offerings by the Department are held at college campuses, in health facilities and other appropriate locations. A variety of formats are used to deliver these continuing education programs including workshops, seminars, conferences and briefings. Such 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 concert with health agencies, key advisory people in the state of Maine, or at the request of a group or individual. Examples of groups served are: nurses, pharmacists, dietitians, physical therapists, occupational therapists, social workers, radiologic technicians, and laboratory technicians.

All programs are awarded CEU's (Continuing Education Units) by USM and are approved by professional associations such as The Maine State Nurses Association, Maine Commission of Pharmacy and other. The following are examples of recent and new programs offered by the Department.

- Physical Assessment Skills
- Teaching the Cardiac Patient
- Decision-Making: The Work of the Health Care Manager
- Competency Based Education
- Developing Consulting Skills
- Emergency Nursing Care
- Holistic Health
- Health Care Law
- Orthopedic Trauma
- The Annual Nurse-Pharmacist Conference
- Writing for Publication
- Prosthetics and Orthotics

# LIFELINE PROGRAM

Director  
Robert Folsom

Admissions Director  
Robert Frazier

Program Director  
Thomas Downing

Exercise Specialists  
Jerie Bugbee, Percival Len Jordan, Marjorie Podgajny

Exercise Counselor  
Nicholas Branch

## PROGRAM OBJECTIVES

**The Lifeline Adult Fitness program** is a comprehensive approach to cardiovascular disease prevention, intervention, and rehabilitation. Hundreds of members of the Greater Portland community participate in one of the more than sixty Lifeline classes per week. Classes for sedentary but apparently healthy adults are offered, including walking/jogging, aquatic fitness, and dance fitness. All participants undergo medical screening and fitness assessments before receiving individual exercise prescriptions.

Lifeline promotes adult learning through courses in stress management, smoking cessation, weight control, and nutrition counseling. All Lifeline activities are designed to promote positive lifestyle changes through education and exercise. Lifeline Adult Fitness Programs generally require medical clearance. Application to all programs should be made well in advance. All inquiries are welcomed at 780-4170.

### **Aerobics Program**

(walk/jog, aquatic fitness, aerobic dance)  
1982-83 Starting Dates: Sept. 27, 1982; Dec 6, 1982

**Walk/Jog** is a program designed for the sedentary person who, for one reason or another is not in good physical condition. This aspect of Lifeline 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 - a continuation of the beginner program.

**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 warm-up/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.

**Aerobic Dance** is a choreographed exercise program focusing on aerobic conditioning, muscular endurance, postural flexibility, and relaxation. Simple dances ranging from slow stretching warm-ups to strenuous rhythmical routines are followed by mat work to improve muscle tone, strength, and flexibility. The program develops proper body alignment and maximum range of motion. The final movements of each class are devoted to exploring various relaxation techniques.

**“Bodyshop”** - The Lifeline 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.

Each applicant will be interviewed. At this time a body assessment will be conducted which includes height, weight, flexibility, strength, body composition, blood pressure, and girth measurements as well as an evaluation of respiratory function. Objectives and goals of each individual are also discussed at this time.

**Senior Lifeline** 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 Lifeline should be considered a maintenance type exercise program where individuals progress at their own rate. Participants may enroll on a continual basis.

**Heartline** - Post-coronary and high risk individuals can join Lifeline's "Heartline" program of cardiac rehabilitation. This is a physician-supervised class, utilizing walking and jogging 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. (Sessions begin in mid-August, late October, early January, mid-March, and late May).

The Heartline Cardiac Rehabilitation Program provides exercise three times a week for twenty weeks. Exercise progresses from low-level stretching calisthenics and walking during the first ten weeks, to moderately vigorous developmental calisthenics and perhaps jogging during the second ten weeks. Although done in a group, all exercise is individually prescribed and suited to each individual's functional capacity.

**Pulmonary Rehabilitation** - Lifeline believes that patients with chronic obstructive pulmonary disease can achieve the highest functional activity level of which they are capable through a comprehensive, intensive program of exercise, education, and proper medical management. This is accomplished by increasing their awareness of their disease and its management, and through participation in a progressive cardio-pulmonary exercise program, thereby enabling adaptation to improve lifestyles. Participants are enrolled in the program only after referral from their primary care physician.

This program provides the opportunity for patients and their families to have instruction in anatomy and physiology or respiration; the conditions that interfere with normal respiration; medications; diet; breathing exercise; relaxation; and respiratory hygiene. Personal counseling and community resources are made readily available to all participants. Because Lifeline believes that learning is active rather than passive, patients are considered as part of the involved team and are expected to share responsibility for their care. Class and activities are planned so that the patient has an opportunity to practice skills, integrate knowledge, and be involved in individualizing his/her home program. We assess the patient's learning needs, plan a program, guide the patient's learning, and evaluate the results.

Participants who are accepted into this program should express a need for help, offer personal goals, and quit smoking or be willing to attend non-smoking classes.

**Low Back Rehabilitation** is a ten 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.

Lifeline Low Back Objectives:

1. To develop muscular strength and endurance adequate to meet the demands placed on the body through vocational and recreational activities.
2. To develop flexibility of joints adequate to assure normal postural alignment and prevention of injury due to sudden strains.
3. To provide opportunity for relaxation and release of physical and mental tension.
4. To develop an understanding of the continuation of physical activities to general health and a knowledge of the significance of different levels in fulfilling this role.

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** - Lifeline offers a supervised training program for boys and girls 14 to 18 years of age. Courses are offered throughout the year utilizing the Lifeline Bodyshop. The program is designed to 1) teach proper conditioning values and techniques, 2) increase muscular strength and endurance, 3) increase flexibility, and 4) increase cardiovascular conditioning.

**Lifeline Leisure Learn Program** - The USM Portland Gymnasium facilities are available to the general public. The Leisure-Learn program provides group activities, leagues, clinics, and physical fitness opportunities for its members. Leisure-Learn offers participants activities and equipment for racquetball, handball, squash, volleyball, basketball, weight training, sauna baths, badminton, jogging, tennis, table tennis, dance, and many others.

**Lifeline Lifestyle Courses Aspects of stress** - This eight-week course deals with stress theory and management. Physical, psychological, and socio-cultural dimensions of stress will be discussed. Methods of stress management will be presented for discussion and experimental involvement. Topics will include relaxation training, aerobic exercise, and personality factors.



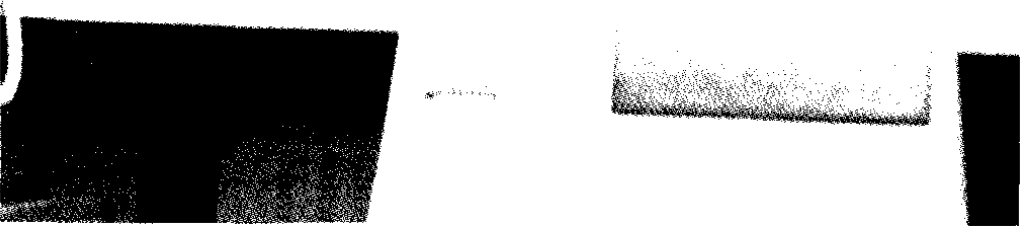
**Weight Reduction** - Small group sessions offered for nine weeks use a many-sided approach to weight reduction. The primary emphasis is on the individual identification and solution to problem eating behaviors which may lead to or maintain overweight conditions. Proper nutrition and eating plans are emphasized and developed for participants, along with discussion on the value and myths of exercise.

**No-Smoking - "I QUIT"** - This course, offered for four weeks, two times per week, is designed to assist the smoker in making the decision to quit 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.

**Cooking for the Health Of It** - Periodically throughout the year Lifeline offers cooking classes co-sponsored with the Whip 'n' Spoon, Commercial Street, Portland.

Courses are offered at various times throughout the year.

Brochures are available for all programs at the Lifeline office; call 780-4170 for further information.



# GRADUATE PROGRAMS

The following graduate programs are available at the University of Southern Maine. The programs are described in detail in the 1982-1983 USM Graduate Catalog.

## MASTERS DEGREES

### College of Arts and Sciences

Computer Science

### College of Education

Adult Education  
Counselor Education  
Educational Administration  
Industrial Education  
Professional Teacher  
Reading

### School of Business, Economics and Management

Business Administration

### School of Nursing

Nursing

### Inter-College Program

Public Policy and Management

## DOCTORAL DEGREE

### Inter-College Program

Public Policy and Management

## PROFESSIONAL DEGREE

### University of Maine School of Law

Law (Juris Doctor)

## IN COOPERATION OF THE UNIVERSITY OF MAINE AT ORONO

Masters Degree in History



# Center for Research and Advanced Study

The purpose of the Center for Research and Advanced Study is to contribute to the development of Maine's economic, social and environmental well-being through applied research and advanced study. The Center serves and assists governments, industries, institutions and the people of Maine to solve policy, operational, organizational and man power problems. The 65 staff of the Center and associated faculty work in interdisciplinary teams to address issues related to economic development, the formation and management of business enterprises, health and human services, education, marine resources, medical technology, and state and local governance. Since the Center's inception in 1972, projects have been supported by numerous state and local agencies in Maine, other New England states, the federal government, private foundations and the business community.

Staff of the Center come to USM from a wide range of research and practitioner roles in state, local and federal governments, private business, not-for-profit organizations and institutions, research and development organizations, and university appointments. The academic fields in which the Center staff have been trained include economics, sociology, psychology, political science, biomedicine, business administration, public administration, law, education, health, social work, communications and counseling.

The Center for Research and Advanced Study is organized in four cooperating institutes.

## **BIOMEDICAL RESEARCH INSTITUTE**

Director: Brian C. Hodgkin

Staff of the Biomedical Research Institute are engaged in studies designed to increase knowledge of life and disease processes. The Institute's objectives also include teaching, encouraging and assisting students who aspire to careers in the health sciences by providing work opportunities and intellectual challenge, and providing a suitable milieu for visiting scientists and teachers to conduct research. Collaborative research and teaching arrangements exist with the Maine Medical Center and other local hospitals.

## **HUMAN SERVICES DEVELOPMENT INSTITUTE**

Director: Stephen P. Simonds

The Human Services Development Institute's projects are concerned with health, rehabilitation services, social services, services for the mentally ill and mentally retarded, and alcoholism. Institute projects include program evaluations, policy/planning materials, job analyses, manpower projections, training systems, training and curriculum materials, policy forums and communication technologies.

## **MARINE LAW INSTITUTE**

Director: Orlando E. Delogu (Acting)

The Marine Law Institute is committed to research and education on significant marine law issues. It researches marine-related issues for local, state and federal agencies and provides interpretations of marine law to interested professionals in government and private industry. The Institute is jointly sponsored by the University of Maine School of Law and the Center for Research and Advanced Study. It is a component of the Center for Marine Studies of the University of Maine at Orono.

## **NEW ENTERPRISE INSTITUTE**

Director: Open

The New Enterprise Institute was formed in 1974 as a business development and research project in the Center for Research and Advanced Study. Its purpose is to help strengthen the Maine economy and improve the material well-being of Maine people by setting in motion events which will stimulate business and industrial enterprise in the state. Supported by both public and private sources, the New Enterprise Institute provides management counseling to entrepreneurs, business owners and executives; offers graduate courses in entrepreneurship and executive development through the School of Business, Economics and Management; organizes technical and marketing programs and seminars for trade and professional associations; and provides business, financial and market information and assistance through the Enterprise Information Service and the Small Business Development Center.

### **Program Areas**

In addition to the four institutes the Center provides research and development services in several program areas including economic studies, science and technology, and organized camping. The Center also operates a collaborative project created by the Governor, the Chancellor of the University of Maine and the USM President to promote partnership efforts between the State and the University in addressing issues of major concern to Maine.

# Summer Session

**Director**  
Helen L. Greenwood

The University of Southern Maine Summer Session offers programs designed to satisfy a range of student interest and need, from qualified high school students in accelerated programs, to undergraduate students seeking to pick up extra credits, to summer visitors and people from the southern Maine community interested in taking a short course for self enrichment. Classes are held days and evenings in many schedule formats. The Gorham campus offers modern dormitory accommodations in the summer at reasonable rates.

In the summer of 1982, USM offered over 250 credit and non-credit courses, and a number of unique institutes and programs. The Chamber Music Seminar, Stonecoast Writers' Conference, an Institute on Human Genetics, a Communication Institute, an Elderhostel program, and a Music Camp for talented high school musicians are examples of some of the special offerings. Over 6,000 people attended summer conferences held in USM facilities, in addition to the 3,000 students taking advantage of the academic courses. Cultural events such as musicals, concert series, poetry readings, planetarium shows, nature and history walks were also featured.

Students interested in attending Summer Session should contact the Summer Session Office, University of Southern Maine, 228 Deering Avenue, Portland, ME 04103, tel: 780-4076.

## The University of Southern Maine Alumni Association

The University of Southern Maine Alumni Association, under the leadership of Director Anne M. Theriault, enrolls more than 18,000 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 sixteen-member Board of Directors and a thirty-member Advisory Council.

The Alumni Center is maintained at the Alumni House on the Portland campus. The Alumni Association of USM works to expand the tradition of service both to the alumni and the the USM community, carrying on a tradition established some 90 years ago at the Gorham campus, and more recently at the Portland campus. Students are urged to visit the Alumni Center and to get acquainted with the personnel and programs of the Alumni Association of USM before graduation. All students, as well as former students, are cordially welcomed.

The Alumni House on the Portland campus, also known as the Deering Farmhouse, is an approved Greater Portland Landmark. Criteria for such approval are: minimum age of fifty years, physical condition displaying original architectural intent and reasonable documentation of the date of construction and history.

# Air Force Reserve Officers Training Corps

Students at the University of Southern Maine may enroll in the Air Force ROTC program offered at the University of New Hampshire. The courses are taught on the UNH campus in Durham and accredited by USM through an agreement between the universities. Students must provide their own transportation to UNH in order to take advantage of this program. No additional tuition is charged to participate in this program. Students enrolled in Air Force ROTC may pursue any course of study which leads to a baccalaureate degree.

Two- and four-year programs are available. The four-year program is open to freshmen and transfer students who began Air Force ROTC at another institution. In addition to attending courses and activities on the UNH campus, students must attend an officer preparatory session for four weeks at an Air Force base during the summer between their sophomore and junior years. The two-year Air Force ROTC program is open to students who have two academic years remaining before graduation. Applicants must apply before the end of their sophomore year and attend a six-week training session during the summer immediately preceding their entry into the Air Force ROTC program.

Air Force ROTC scholarships are offered on a competitive basis. Entering freshmen may compete for four-year scholarships during the last year of high school. Students in the four-year Air Force ROTC program can compete for 3½, 3, 2½ and 2-year scholarships. Scholarships pay for tuition, all mandatory fees, and required textbooks for all courses. Uniforms and textbooks for the Air Force ROTC classes are provided without charge. In addition, all scholarship recipients receive a tax-free \$100-per-month subsistence allowance. Non-scholarship students in the last two years of the program also receive this subsistence allowance.

## CURRICULUM

Students enrolled in Air Force ROTC are required to take a math reasoning course from a list approved by the Professor of Aerospace Studies as part of their curriculum. Students who qualify for pilot training are provided civilian flight instruction during the summer before their senior year.

More specific information about the Air Force ROTC program may be obtained by contacting the Professor of Aerospace Studies, University of New Hampshire, Durham, NH 03824 (Telephone: 603-862-1480).

## COURSE DESCRIPTIONS

### **AFL Leadership Laboratory**

Taken by all AFROTC cadets throughout enrollment in AFROTC. Command and staff leadership experiences in cadet corps. Air Force customs and courtesies; drill and ceremonies; career opportunities; life and work of junior officer. Student leadership potential developed in a practical, supervised laboratory. Field trips to Air Force installations. Cr 0.

### **AFL 11 The Air Force Today I**

Development, mission, and organization of the Air Force as an instrument of the U.S. national defense policy. Cr 1.

### **AFL 12 The Air Force Today II**

Major Air Force commands; roles of separate operating agencies; organization, systems, and operations of strategic defense; general - purpose aerospace support forces. Cr 1.

### **AFL 21 The Development of Air Power I**

The nature of warfare; development of air power from balloons and dirigibles through World War II. Cr 1.

### **AFL 22 The Development of Air Power II**

Development of air power from post-World War II through the peaceful use of air power in Berlin; the Cuban crisis; air war in Southeast Asia; and research and development of present and future aerospace vehicles. Cr 1.

### **AFL 31 Air Force Management and Leadership I**

An integrated management course emphasizing the individual as a manager in the Air Force. Motivation and behavior, leadership, communication, group dynamics and decision making in a changing environment. Air Force cases studied. Cr 4.

### **AFL 32 Air Force Management and Leadership II**

Organizational and personal values; management of forces in change; organizational power, politics, managerial strategy and tactics; Air Force cases studied. Cr 4.

### **AFL 41-42 National Security Forces in Contemporary American Society I and II**

A full-year course focused on the armed forces as part of American society, emphasizing civil-military relations in context of U.S. policy formulation and

implementation. Attitudes toward the military; socialization processes; role of the professional military leader-manager; requirements for adequate national security forces; political, economic, and social constraints on the national defense structure;

impact of technological and international developments on strategic preparedness; the variables involved in the formulation and implementation of national security policy; military justice and administrative law. Cr 4.

# Army Reserve Officers Training Corps

ROTC offers male and female students at USM an opportunity to earn a commission in the United States Army concurrently with their baccalaureate degree. Students register for Military Science courses as part of their regular USM curriculum. For further information on Army ROTC at USM, contact the ROTC Department in Corthell Hall on the Gorham campus, or call 780-5255.

## CURRICULUM

The 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.

## COURSE DESCRIPTIONS

### The Basic Course

To complete the basic course, the student must complete the core curriculum or the student must complete ROTC Basic Camp (MT 29). The core curriculum consists of MT 11, 12, 21, and 22. 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.

#### **UMO-MTL Leadership Laboratory**

Leadership Lab is a requirement for all ROTC cadets. The purpose of Leadership Lab is to provide an environment wherein each cadet can develop and improve their military leadership skills. Counseling and periodic evaluation of cadet performance are the primary methods used. (In case of conflicts, an alternate Leadership Lab will be arranged to meet student requirements.)

#### **UMO-MT 11 Introduction to ROTC and the U.S. Army**

The purpose and organization of the ROTC Program. The role of officers. The development of military customs, courtesies and traditions. 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.

#### **UMO-MT 12 National Security**

Soviet and United States principles of war are presented. Technological advances are highlighted and their influence on warfare. The organization of the U.S. Army and the national defense structure are discussed. Factors and instruments of national power and the attainment of national objectives. Participation in Leadership Laboratory is required. Cr 1.

#### **UMO-MT 21 Map Reading and Squad Tactics**

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. Squad organization, movement techniques and actions are taught and practiced in a field environment. Student participation in Leadership Laboratory is required. Cr 2.

### **UMO-MT 22 American Military History**

Development of the United States Military system from colonial times to present. Examination of the principles of war and how they impact on military organizations and tactics are discussed. Student participation in Leadership Laboratory is required.

Cr 2.

### **UMO-MT 29 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. No military obligation incurred. 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 MT 29 satisfies all basic course requirements. Six different cycles 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 year. 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.

### **UMO-MT 31 Leadership**

Exposure to the branches of the Army. The development and conduct of military instruction is outlined. Exposure to the various leadership theories and to the leadership environment are discussed and experienced. Fundamentals of leadership, human behavior, communication, and contemporary human problems are reviewed and practiced. Student participation in Leadership Laboratory is required.

Cr 3.

### **UMO-MT 32 Advanced Tactics**

Exposure to military equipment and military tactics at the squad, platoon, and company level. Advanced Camp prerequisites are completed. Student par-

ticipation in Leadership Laboratory is required.

Cr 2.

### **UMO-MT 41 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 Objective (MBO) and Organizational Effectiveness (OE) theories are discussed. The modern volunteer Army (MVA) and total Army goals are reviewed. Framework of ethical actions are discussed and practiced. Student participation in Leadership Laboratory is required.

Cr 3.

### **UMO-MT 42 Operations Seminar**

Students are exposed to larger unit operations at the brigade and battalion level. The sequence of command and staff actions and the 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. Student participation in Leadership Laboratory is required.

Cr 3.

### **UMO-PT**

A physical training program designed to evaluate the physical abilities of advanced course cadets and to sustain that ability. The class is a requirement for advanced course cadets and is optional for basic course cadets. The class will meet for one hour a week.

Cr 0.

### **UMO-Special Courses**

Special courses are available to individuals in the ROTC program on a competitive and voluntary basis. Those courses are: Airborne School, Ranger School, Air Assault School, and the Northern Warfare Training School. Information on these courses is available through the Army ROTC office.

Cr 0.

### **Scholarships**

Army ROTC scholarships for 3, 2, and 1 years are available on a competitive basis for individuals enrolled and non-enrolled in the ROTC program. The scholarships are awarded annually and 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 stopping into the ROTC office.



# OFFICERS OF ADMINISTRATION OF THE UNIVERSITY OF SOUTHERN MAINE

## Administrative Organization as of August 1, 1982

### President

Robert L. Woodbury, 228 Deering Avenue, Portland tel: 780-4480

### Provost

Edward J. Kormondy, 228 Deering Avenue, Portland tel: 780-4485

### Executive Assistant to the President

William B. Wise, 228 Deering Avenue, Portland tel: 780-4482

### Executive Director for Budget and Institutional Research

Samuel G. Andrews, 209 Deering Avenue, Portland tel: 780-4484

### Executive Director for Employee Relations

Beth I. Warren, 209 Deering Avenue, Portland tel: 780-4488

### Executive Director for University Relations

Alyce S. O'Brien, 6th Floor Research Center, Portland tel: 780-4440

### Administrative Staff of the President

Administrative Assistant to the President: Virginia L. Emery, 228 Deering Avenue, Portland tel: 780-4480

Director of Intercollegiate Athletics: Richard A. Costello, 108 Hill Gymnasium, Gorham tel: 780-5430

Director of the University of Southern Maine Alumni Association: Anne M. Theriault, Alumni House, Portland tel: 780-4110

### Administrative Staff of the Provost

Assistant to the Provost: Stephen J. Reno, 228 Deering Avenue, Portland tel: 780-4487

Dean of College of Arts and Sciences: Robert J. Hatala, 118 Bailey Hall, Gorham tel: 780-5376

Dean of College of Education: Loren W. Downey, 119 Bailey Hall, Gorham tel: 780-5371

Dean of School of Business, Economics and Management: Duane Wood, 113 Bonney Hall, Portland tel: 780-4020

Dean of School of Law: L. Kinvin Wroth, 105 Law School, Portland tel: 780-4344

Dean of School of Nursing: Audrey J. Conley, 55 Exeter Street, Portland tel: 780-4130

Dean of Educational Services: Gordon S. Bigelow, 117 Payson Smith Hall, Portland tel: 780-4035

Director of Center for Research and Advanced Study: Robert J. Goettel, 401 Research Center, Portland tel: 780-4411

Director of Division of Basic Studies: George P. Connick, 68 High Street, Portland tel: 780-4470

Director of Educational Media: Allen W. Milbury, Bailey Hall Basement, Gorham tel: 780-5236

Director of Public Service: William G. Mortensen, 100 Payson Smith Hall, Portland tel: 780-4092

University Librarian: Stevens W. Hilyard, 123 Bonney Hall, Portland tel: 780-4270

### Administrative Staff of the Executive Assistant to the President

Director of Facilities Management: Joseph P. Papa, Bonney Hall, Portland tel: 780-4160

### Administrative Staff of the Executive Director for Budget and Institutional Research

Business Manager: William B. Bullock, 106 Payson Smith Hall, Portland tel: 780-4026

Research Associate: Rosemary Roberts, 209 Deering Avenue, Portland tel: 780-4491

### Administrative Staff of the Executive Director for Employee Relations

Director of Equal Employment Opportunity: Kathleen H. Bouchard, 120 Bonney Hall, Portland tel: 780-4156

Director of Personnel: John H. Pence, 110 Corthell Hall, Gorham tel: 780-5260

Labor Relations Coordinator: George F. Hackett, 209 Deering Avenue, Portland, tel: 780-4490

Volunteer Assistant: Eleanor W. Law, 209 Deering Avenue, Portland tel: 780-4488

### Administrative Staff of the Executive Director for University Relations

Director of Public Information: Roger V. Snow, Jr., 6th Floor Research Center, Portland tel: 780-4200

Director of Public Service: William G. Mortensen, 100 Payson Smith Hall, Portland Tel: 780-4092

# ACADEMIC ADMINISTRATIVE STRUCTURE OF THE PROVOST'S OFFICE

## COLLEGE OF ARTS AND SCIENCES

- Dean: Robert J. Hatala, 118 Bailey Hall, Gorham tel: 780-5376
- Chairman, Art Department: Duncan Hewitt, 101 Academy Building, Gorham tel: 780-5460
  - Chairman, Biological Sciences Department: Louis Gainey, 306 Science Building, Portland tel: 780-4265
  - Chairman, Chemistry Department: John Ricci, 363 Science Building, Portland tel: 780-4232
  - Chairman, Communication Department: James Bethel, 3 Washburn Avenue, Portland tel: 780-4187
  - Chairman, English Department: L. Morrill Burke, 321 Bonney Hall, Portland tel: 780-4291
  - Chairman, Foreign Languages and Classics Department: Mara Ubans, 514 Bonney Hall, Portland tel: 780-4292
  - Chairman, Geography-Anthropology Department: Franklin D. Hodges, 300a Bailey Hall, Gorham tel: 780-5320
  - Chairman, Geosciences Department: Irwin D. Novak, 112a Bailey Hall, Gorham tel: 780-5350
  - Chairman, History Department: Joel W. Eastman, 325 Bonney Hall, Portland tel: 780-4287
  - Chairman, Mathematics & Computer Science Department: Maurice J. Chabot, 230 Science Building, Portland tel: 780-4247
  - Chairman, Music Department: Jerry L. Bowder, 206 Corthell Hall, Gorham tel: 780-5265
  - Chairman, Philosophy Department: Jeremiah P. Conway, 221 Science Building, Portland tel: 780-4242
  - Chairman, Physics and Engineering Department: (open)
  - Chairman, Political Science Department: Oliver Woshinsky, 317 Bonney Hall, Portland tel: 780-4283
  - Chairman, Psychology Department: John S. Bishop, 512 Science Building, Portland tel: 780-4254
  - Chairman, Social Welfare Department: Joseph D. Kreisler, 7 Chamberlain Avenue, Portland tel: 780-4120
  - Chairman, Sociology Department: Peter M. Lehman, 120 Bedford Street, Portland tel: 780-4100
  - Chairman, Theater Department: Walter R. Stump, Russell Hall, Gorham tel: 780-5481
  - Coordinator, Criminal Justice Program: Piers Beirne, 120 Bedford Street, Portland tel: 780-4100
  - Director, Art Gallery: Juris K. Ubans, Ground Floor, Robie-Andrews Hall, Gorham tel: 780-5467
  - Director, Museum of Man: Robert J. French, 320-C Bailey Hall, Gorham tel: 780-5320

## COLLEGE OF EDUCATION

- Dean: Loren W. Downey, 119 Bailey Hall, Gorham tel: 780-5371
- Assistant Dean: Charles M. Lyons, 119 Bailey Hall, Gorham tel: 780-5371
  - Director, Professional Development Center: A. Nye Bemis, 301 Bailey Hall, Gorham tel: 780-5326
  - Director, Clinical Experiences: Melissa H. Costello, 504 Bailey Hall, Gorham tel: 780-5300
  - Educational Placement Specialist: Elaine Howe, 402 Bailey Hall, Gorham tel: 780-5336
  - Chairman, Professional Education Department: John E. Deady, 503 Bailey, Gorham tel: 780-5300
  - Chairman, Human Resource Development Department: John M. Sutton, 400 Bailey Hall, Gorham tel: 780-5316
  - Chairman, Industrial Education and Technology Department: Arthur O. Berry, 103 Industrial Education Center, Gorham tel: 780-5441

## SCHOOL OF BUSINESS, ECONOMICS AND MANAGEMENT

- Dean: Duane Wood, 113 Bonney Hall, Portland tel: 780-4020
- Chairman, Baccalaureate Degree Program in Business Administration: (Open)
  - Chairman, Associate Degree Program in Business Administration: Joel I. Gold, 118 Bedford Street, Portland tel: 780-4183
  - Chairman, Economics Department: Robert McMahon, 121 Bonney Hall, Portland tel: 780-4330

## SCHOOL OF LAW

- Dean: L. Kinvin Wroth, 105 Law School, Portland tel: 780-4345
- Assistant Dean: Mary Lou Dyer, 103 Law School, Portland tel: 780-4345
  - Assistant to the Dean: Gayle Knowlton, 109 Law School, Portland tel: 780-4340
  - Director of Clinical Practice Program: Judy R. Potter, 112 Research Center, Portland tel: 780-4358
  - Director of Placement and Alumni Relations: John Ackerman, 108 Law School, Portland tel: 780-4342
  - Acting Librarian of School of Law: Martha Palmer, 210 Law School, Portland tel: 780-4352
  - Registrar: Frances Tucker, 101 Law School, Portland tel: 780-4346

## SCHOOL OF NURSING

- Dean: Audrey J. Conley, 55 Exeter Street, Portland tel: 780-4130
- Associate Dean: Carla H. Mariano, 55 Exeter Street, Portland tel: 780-4130

## EDUCATIONAL SERVICES

Dean: Gordon S. Bigelow, 117 Payson Smith Hall, Portland tel: 780-4035  
Assistant Dean: John Keysor, 113 Corthell Hall, Gorham tel: 780-5236  
Director of Admissions: Dennis Farrell, Corthell Hall, Gorham tel: 780-5215  
Director of Advising and Information Department: Richard Sturgeon, Payson Smith Hall, Portland tel: 780-4040  
Coordinator of Academic Counseling Services: John N. Farrar, Payson Smith Hall, Portland tel: 780-4040  
Coordinator of Information Services: Cyrus Hendren, Payson Smith Hall, Portland tel: 780-4040  
Coordinator of Off-Campus Center Development: Deborah Daeris, YCCCS Learning Center, 11 Adams Street, Biddeford tel: 282-4111  
Director of Counseling and Career Development: Ira Hymoff, 122 Payson Smith Hall, Portland tel: 780-4050  
Coordinator of Placement and Academic Internships: (Open), Payson Smith Hall, Portland tel: 780-4050  
Coordinator of Handicapped Services: Dexter Hunttoon, Payson Smith Hall, Portland tel: 780-4050  
Acting Director of Residence Life: Charles H. Lamb, Upton Hall, Gorham tel: 780-5240  
Director of Student Affairs: Domenica Cipollone, Student Union, Portland tel: 780-4090; Student Center, Gorham tel: 780-5470  
A.R.A. Food Services: Mark Whitehead, Dining Center, Gorham tel: 780-5420  
Director of Student Financial Aid: Bruce S. Johnson, 202 Corthell Hall, Gorham tel: 780-5250  
Registrar: John Keysor, 113 Corthell Hall, Gorham tel: 780-5236

## ADMINISTRATION OF THE UNIVERSITY OF MAINE

### UNIVERSITY OF MAINE BOARD OF TRUSTEES

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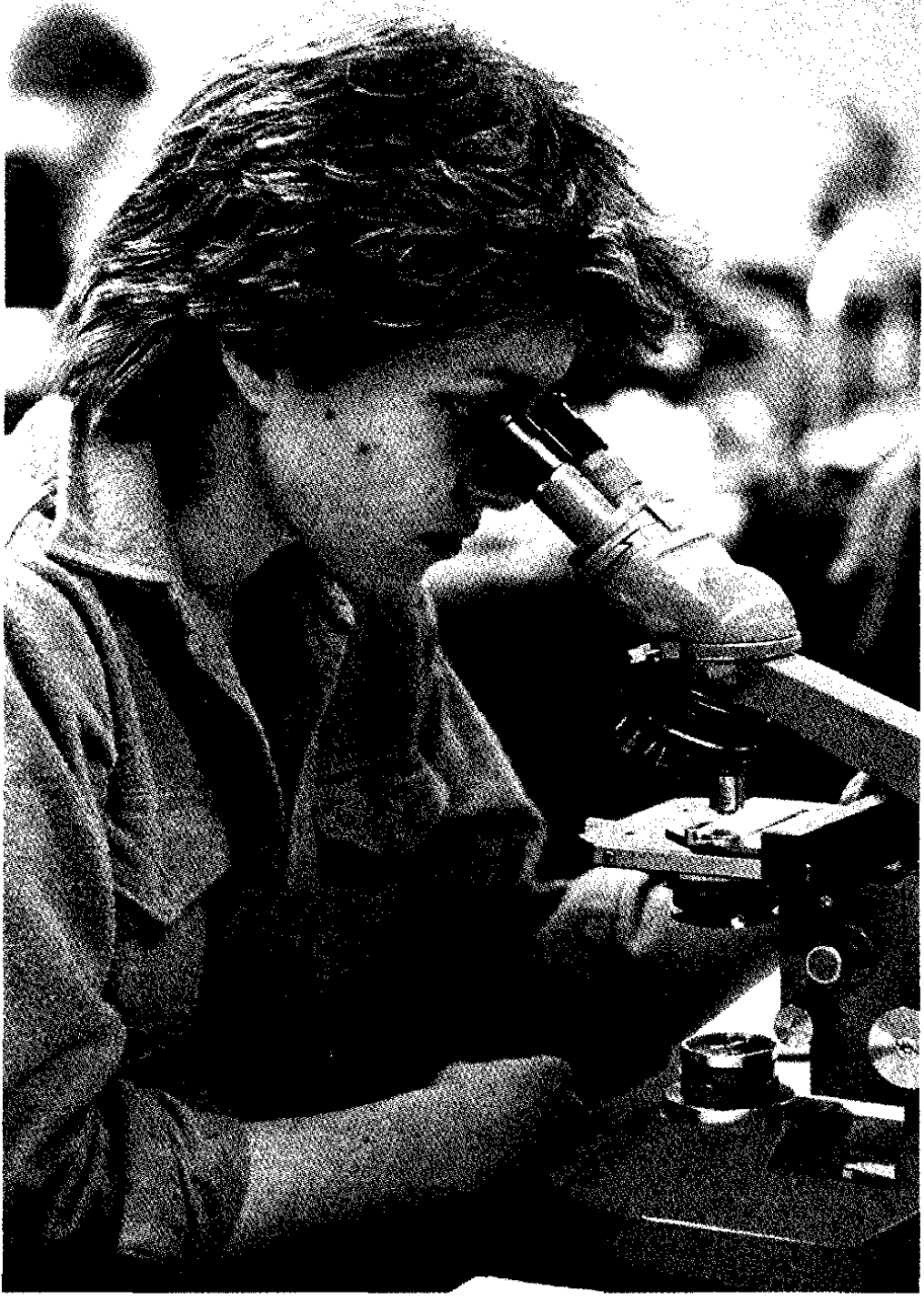
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*The University has a CENTREX telephone system which allows direct access to individuals and departments. When these numbers are not known, the main switchboard telephone number is (207) 780-4141*



# University of Southern Maine

## Personnel Listings

### EMERTI

**Bowman, James A.** (1949-1974) Gorham State Teachers College, B.S., 1947; Boston University, Ed.M., 1951; Associate Professor Emeritus of Educational Psychology

**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

**Goodwin York, Jeanette L.** (1955-1981) Sargent College, B.S., 1944; Springfield College, Ed.M., 1955; Associate Professor Emerita of Physical Education and Dance

**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

**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

**Romanyshyn, John M.** (1953-1981) University of Oklahoma, B.A., 1942; University of Chicago, M.A., 1952; Professor Emeritus of Social Welfare

**Sawtelle, Gwen D.** (1938-43;53) University of Minnesota, B.S., 1935; George Peabody College for Teachers, M.S., 1939; Associate Professor Emerita of Arts

**Sawyer, Elizabeth C.** (1943-1971) University of Maine, B.S., 1928; Boston University, M.A., 1943; Middlebury College, M.A., 1963; Assistant Professor Emerita of English

**Whitten, James M.** (1951-1982) Colby College, A.B., 1944; University of Maine, M.A., 1955; Associate Professor Emeritus of Education

**Wood, Ester E.** (1930-1972) Colby College, A.B., 1926; Radcliffe College, M.A., 1929; Associate Professor Emerita of Social Sciences

### PERSONNEL

**Abrams, Richard H.** (1979) Assistant Professor of English; McGill University B.A., 1964; University of Pennsylvania, M.A., 1965; University of New York, Ph.D., 1968

**Ackerman, John R.** (1980) Law School Placement and Alumni Director; University of Maine, B.A., 1966; M.Ed., 1971

**Adams, Julia** (1978) Artist in Residence, Music; Oberlin College, B.A., 1962; San Francisco State College, M.A., 1966

**Albee, Parker B., 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

**Amoroso, Henry C.** (1982) Associate Professor of Education; St. Michael's College, B.A., 1966; Goucher College, M.Ed., 1966; University of Wisconsin, Ph.D., 1978

**Anderson, Albert, Jr.** (1976) Senior Research and Advanced Study Associate, Center for Research and Advanced Study; University of New Hampshire, B.A., 1961; University of Maine at Orono, M.A., 1964; Ph.D., 1969

**Anderson, Andrew L.** (1975) Assistant Professor of Graphic Communication; University of Wisconsin at Platteville, B.S., 1973; M.S., 1975

**Andrews, Bruce H.** (1974) Associate Professor of Business Administration; University of Connecticut, B.A., 1967; Polytechnic Institute of New York, M.S., 1969; Ph.D., 1980

**Andrews, Samuel G.** (1966) Executive Director for Budget and Institutional Research; 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

**Ashley, Kathleen M.** (1978) Associate Professor of English; Duke University, B.A., 1969; M.A., 1970; Ph.D., 1973

**Ayer, Nancy** (1981) Research Assistant, Center for Research and Advanced Study; University of Maine at Portland-Gorham, B.A., 1975; West Virginia University, M.S.W., 1976

**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

**Bailow, Judith K.** (1978) Instructor, School of Nursing; Ohio State University, B.S., 1961; Boston University, M.S.N., 1967

**Banner, Gerald T.** (1968) Reference Librarian; New School for Social Research, B.A., 1965; Pratt Institute, M.L.S., 1967

**Barrett, Polly W.** (1981) Publications Specialist; Cornell University, B.S., 1981

**Bay, John W.** (1965) Associate Professor of Economics; Saint Ambrose College, B.A., 1961; Boston College, M.A., 1964; Ph.D., 1966

**Bearce, Jeana Dale** (1965) Professor of Art; Washington University, B.F.A., 1951; New Mexico Highlands University, M.A., 1954

**Beirne, Piers** (1982) Associate Professor of Sociology and Legal Studies; Essex University (England), B.A., 1971; Durham University (England), Ph.D., 1975

- Bemis, A. Nyc** (1970) Assistant Professor of Education and Director of Professional Development Center and International Exchange; Gorham State College, B.S., 1964; M.S., 1969
- Benamati, Dennis C.** (1979) Assistant Law Librarian for Technical Services; St. Francis College (PA), B.A., 1970; Fordham University, M.A., 1974; Southern Connecticut State College, M.L.S., 1975
- Benton, Kathie L.** (1980) Assistant to the Dean, College of Arts and Sciences; University of Mississippi, B.A., 1969; Memphis State University, M.Ed., 1975; Ed.D., 1980
- Bergstrom, Linda** (1980) Instructor, School of Nursing; Gustavus Adolphus College, B.A., 1973; Teacher's College, Columbia University, M.Ed., 1980
- Bernard, Anne** (1978) Research Assistant, Center for Research and Advanced Study
- Bernotavicz, Freda D.** (1974) Research and Advanced Study Associate, Center for Research and Advanced Study; Nottingham University, B.A., 1963; Syracuse University, M.S., 1966
- Berry, Arthur O.** (1955) Professor of Industrial Education and Chairman, Dept of Industrial Education and Technology; Gorham State College, B.S., 1950; Pennsylvania State University, Ed.M., 1954; University of Connecticut, Ph.D., 1967
- Bethel, James A.** (1981) Associate Professor of Communication and Department Chairman; University of Tulsa, B.A., 1964; University of Oklahoma, M.A. 1971; University of Oklahoma, Ph.D., 1974
- 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
- Bigelow, Gordon S.** (1971) Dean of Educational Services; Brown University, A.B., 1954; University of Maine, Ed.M., 1962; Brigham Young University, A.M., 1966; Ph.D., 1967
- 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
- Boden, John C.** (1981) Instructor of Music; Northwestern University, B.M., 1974; University of Missouri at Kansas City Conservatory, M.M., 1981
- 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 of Equal Employment Opportunity; Western Michigan University, B.A., 1966; Indiana University, M.S., 1969
- 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) Assistant Professor of Marketing; United States Military Academy, B.S., 1959; University of Florida, M.B.A., 1964; University of Washington, Ph.D., 1982
- Brady, James B.** (1969) Coordinator of On-Line 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 Counselor; Beloit College B.A., 1973
- Brazier, Lawrence** (1977) Director of Administrative Data Systems; Southwest Missouri State University, B.S., 1966; Florida State University, M.A., 1974
- Briggs, Wayne F.** (1965) Chief Accountant and Director of Purchasing; University of Maine at Portland-Gorham, B.S., 1975
- Brown, William A.** (1960) Associate Professor of Mathematics; Bowdoin College, B.A., 1954; University of Maine, M.A., 1959
- Brysh, Janet F.** (1976) Librarian, Center for Research and Advanced Study; Marymount College, B.A., 1958; Hunter College, M.A., 1964; Rosary College, M.L.S., 1968
- Bugbee, Jerie L.** (1980) Lifeline Exercise Specialist; University of Buffalo, B.S., 1973; University of New Hampshire, M.S., 1981
- Bullock, William B.** (1970) Business Manager; Cornell University, B.S., 1953; M.B.A., 1959
- Burke, L. Morrill, Jr.** (1959) Associate Professor of English; Bowdoin College, A.B., 1949; University of Washington, M.A., 1951; Columbia University, Ph.D., 1971
- Burson, Janet Z.** (1978) Assistant Professor, School of Nursing; Syracuse University, B.S., 1964; Oregon State University, M.S., 1975
- Burtchell, Veda** (1972) Coordinator of Space and Scheduling
- Burwell, Judith K.** (1982) Program Specialist, Department of Community Programs; University of Maine at Orono, B.S., 1967; M.P.S., 1977
- Callender, Willard D., Jr.** (1962;1972) Senior Research and Advanced Study Associate, Center for Research and Advanced Study; Bates College, A.B., 1958; University of Connecticut, M.A., 1960; Ph.D., 1967
- Campbell, Anne B.** (1978) Project Coordinator/Child Development Specialist, Maine Children's Resource Center and Assistant Professor of Education; Verrinont 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) Director, Student Financial Aid; University of Maine at Portland-Gorham, B.S., 1974
- Carmichael, Peter** (1975) Director, Cooperative Education, School of Business, Economics and Management, and Assistant Professor of Associate Business Administration; University of Maine, B.S., 1971; University of Massachusetts, M.B.A., 1973
- Carner, Frank K.** (1970) Associate Professor of English; Temple University, B.S., 1964; M.A., 1967; 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) Associate 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 Industrial Education; Gorham State College, B.S., 1954; University of Maine, Ed.M., 1964; Boston University, C.A.S., 1971
- Caswell, Robert S.** (1980) Information Specialist; University of Southern Maine, B.A., 1974

- Chabot, Maurice J.** (1965) Associate Professor of Mathematics; University of Maine, B.A., 1961; Bowdoin College, M.A., 1965
- Chandler, Joseph** (1968) Associate Professor of Business and Economics; Bowdoin College, A.B., 1942; University of Maine, M.B.A., 1967; University of New Hampshire, M.A., 1971
- Chipman, Carol K.** (1980) Admissions Counselor; University of Southern Maine, B.A., 1976
- Chronister, Floyd B.** (1966) Associate Professor of Education; Conservatory of Music, U.M.K.C., Missouri, B.M., 1953; University of Kansas, B.M.E., 1955; M.M.E., 1959; Ed.D., 1969
- Cipollone, Domenica** (1977) Acting Director, Student Activities/New Student Programs; University of Cincinnati, B.A., 1969; University of the Americas (Mexico) M.A., 1974
- Clarey, Richard J.** (1979) Associate Professor of Management; Bowdoin College, B.A., 1961; Dartmouth College, M.B.A., 1963; Cornell University, Ph.D., 1968
- Clarke, Carolyn K.** (1968) Head of Periodicals Services; University of Maine, B.A., 1968; M.L.S., 1974
- Cluchey, David P.** (1979) Visiting Associate Professor, School of Law; Yale University, B.A., 1968; State University of New York, M.A., 1970; Harvard Law School, J.D., 1973
- Cobb, Merrill E.** (1966) Professor of Education; University of Maine, B.S., 1949; Ed.M., 1953; University of Massachusetts, Ed.D., 1968
- Coburn, Andrew F.** (1981) Research and Advanced Study Associate; Center for Research and Advanced Study; Brown University, Providence, A.B., 1972; Harvard Graduate School of Education, Ed.M., 1975; Brandeis University, Ph.D., 1981
- Coffin, Richard N.** (1964) Associate Professor of English; Bowdoin College, B.A., 1951; Harvard University, A.M., 1952; Boston University, Ph.D., 1962
- Cohen, Alan M.** (1977) Associate Director, Technical Services, Center for Research and Advanced Study; New York University, B.S., 1949; M.B.A., 1951
- Cohen, Libby G.** (1980) Assistant Professor of Special Education; University of Connecticut, B.A., 1967; Russell Sage College, M.S., 1971; Boston University, Ed., 1977
- Coit, Charles S.** (1977) Director, Center for Real Estate Education and Assistant Professor of Associate Business Administration; Yale University, B.S., 1966; Boston College, J.D., 1971
- Cole, Phillip A.** (1957) Professor of History; Boston University, B.S., 1954; M.A., 1955; Ph.D., 1963
- Cole, Ronald F.** (1963) Associate Professor of Music; Bowdoin College, B.A., 1961; Eastman School of Music, M.A., 1963; Indiana University, Ph.D., 1975
- Collins, Mary I.** (1976) Research and Advanced Study Associate, Center for Research and Advanced Study; Boston University, B.A., 1963; University of Colorado, M.A., 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
- Conley, Audrey J.** (1979) Dean and Professor, School of Nursing; Case Western Reserve University, M.S., 1957; Columbia University, Ed.D., 1972
- Connick, George P.** (1966) Director, Division of Basic Studies and Associate Professor of History; Stanford University, B.A., 1957; San Jose State College, M.A., 1960; University of Colorado, Ph.D., 1969
- Connolly, James B.** (1977) Assistant Director, Applied Studies, School of Business, Economics and Management; University of Maine at Portland-Gorham, B.S., 1977
- Conway, Jeremiah P.** (1978) Assistant Professor of Philosophy; Fordham University, B.A., 1970; Yale University, M. Phil. 1974; Yale University, 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
- Corson, Doane B.** (1970) 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
- Cotton, Jean** (1967) Associate Professor, School of Nursing; Simmons College, B.S., 1960; Boston University, M.S., 1962
- Critchley, Judith A.** (1974) Staff Associate for Employee Benefits Management
- Crochet, Monique Y.** (1970) Associate Professor of French; University of Paris, Sorbonne, Licence d'anglais, 1959; Diplome d'Etudes superieures and C.A.P.E.S., 1960; Doctorat de l'Universite de Paris, 1969
- Curtis, Nancy M.** (1976) Assistant Professor, School of Nursing; University of Maine School of Nursing, B.S., 1968; Boston University, M.S., 1974
- Czupryna, Louise** (1980) Assistant Professor, School of Nursing; Northeastern University, B.S., 1973; University of Colorado, M.S., 1976
- Daeris, Deborah L.** (1976) Coordinator of Off-Campus Center Development; University of New Hampshire, B.A., 1972; Springfield College, M.Ed., 1975
- Dalvet, Yves F.** (1968) Associate Professor of French; Laval College, B.A., 1940; New York University, M.A., 1965; Yale University, M.Ph., 1969
- Davis, Everett A.** (1966) Assistant Professor of Education Media; Gorham State College, B.S., 1961; Indiana University, M.S.Ed., 1966; Ed.S., 1972
- Deady, John E.** (1981) Associate Professor of Education and Chairman, Dept. of Professional Education; Amherst College, B.A., 1947; University of Massachusetts, M.S., 1950; Harvard University, Ed.D., 1956
- Delogu, Orlando E.** (1966) Professor, School of Law; University of Utah, B.S., 1960; University of Wisconsin, M.S., 1963; J.D., 1966
- Deprez, Luisa S.** (1976) Associate Professor of

- Social Welfare; Keuka College, B.A., 1970; Rutgers University, M.S.W., 1971
- di Benedetto, 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) Associate Professor of History; University of Chicago, A.B., 1961; Ph.D., 1970
- Dillman, David D.** (1981) Associate Director of Personnel Services
- Dorbacker, Beatrice M.** (1974) Associate Professor, School of Nursing; Columbia University, B.S., 1950; M.S., 1957; Boston University, Ed.D., 1973
- Dorsey, F. Donald, Jr.** (1967) Assistant Professor of Biology; Bowdoin College, A.B., 1950; Syracuse University, M.S., 1960; Simmons College, M.S., 1964
- Doty, Elizabeth** (1981) Adjunct Faculty, School of Nursing
- Downey, Loren W.** (1974) Dean, 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.** (1976) Lifeline Program Director; University of New Hampshire, B.S., 1973
- Doyle, Joanne** (1977) Director, Department of Community Programs; University of Maine, B.S., 1974; M.S. 1977
- Drew, David** (1972) Instructor in Physical Education; Springfield College, B.S., 1967; M.Ed., 1971
- Drew, Judith C.** (1978) Assistant Professor, School of Nursing; Northeastern University, B.S., 1972; Boston University, M.S., 1977
- Dubowick, Dorothy B.** (1968) Associate Professor, School of Nursing; Colby College, A.B., 1948; University of Maine at Portland-Gorham, M.S., 1971
- Duclos, Albert J.** (1965) Associate Professor of Theatre; University of Maine, B.S., 1963; M.A., 1965
- Duclos, Gloria S.** (1962) Professor of Classics; Radcliffe College, A.B., 1949; M.A., 1953; Oxford University, B.A., 1951; M.A., 1955
- Dunn, Caroline H.** (1980) Instructor, School of Nursing; Arizona State University, B.S., 1976; University of California, M.S., 1978
- Durgin, Frank A., Jr.** (1964) Professor of Business and Economics; Tufts University, B.A., 1949; University of Toulouse, France, License en Droit, 1954; Docteur en Droit, 1956
- Duval, Marjorie A.** (1962) University Archivist and Reference Librarian; New England Conservatory of Music, B.Mus., 1945; Simmons College, M.S., 1962
- Eastman, Joel W.** (1970) Associate Professor of History; University of Maine at Orono, B.A., 1962; M.A., 1965; University of Florida, Ph.D., 1973
- Ellis, Ann P.** (1973) Associate Professor, School of Nursing; University of Maine at Orono, B.S., 1964; Boston University, M.S., 1967
- Ellis, Jeffrey E.** (1981) Acting Assistant Director of Student Financial Aid
- Emerson, Horton W., Jr.** (1962) Professor of History; Colby College, A.B., 1949; Yale University, Ph.D., 1957
- Emery, Virginia L.** (1966) Administrative Assis-
- tant to the President; Shaw's Business College, 1938
- 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
- Farrar, John N.** (1966) Coordinator of Academic Counseling Services; University of Maine, B.A., 1951; M.Ed., 1958; C.A.S., 1962
- Farrell, Dennis P.** (1981) Director of Admissions; Boston College, B.A., 1964; Worcester State College, M.Ed., 1973
- Faulkner, Howard M.** (1970) Associate Professor of Industrial Education; Massachusetts State College of Fitchburg, B.S., 1957; Northeastern University, M.Ed., 1960
- Field, Patricia D.** (1970) Instructor in Physical Education; University of Oregon, B.A., 1964; Boston University, M.Ed., 1967
- Findlay, Robert W.** (1967) Professor of Accounting; Boston University, B.S., 1955; M.B.A., 1964; C.P.A. (Massachusetts and Maine)
- Fish, Lincoln T., Jr.** (1959) Professor of Mathematics; University of Maine, B.S., 1948; M.A., 1949; Boston University, Ed.D., 1951
- Fisher, Irving D.** (1967) Associate Professor of Political Science; University of Connecticut, B.A., 1946; Columbia University, M.A., 1953; Ph.D., 1976
- Folsom, Robert E.** (1968) Director, Lifeline Adult Fitness Program; Springfield College, B.S., 1953; Boston University, Ed.M., 1962
- Foster, Carolyn N.** (1966) Associate Professor of Mathematics; Douglass College (Rutgers), A.B., 1958; Purdue University, M.S., 1961; Bowdoin College, A.M. 1966
- Fournier, Margaret A.** (1976) Associate Professor, School of Nursing; Fitchburg State College, B.S.N., 1972; Boston University, M.S.N., 1976
- Fournier, Wayne M.** (1980) Superintendent of Maintenance; Maine Maritime Academy, B.S., 1968
- Fralich, Julie T.** (1981) Research and Advanced Study Associate, Center for Research and Advanced Study; Hampshire College, B.A., 1974; Boston University, M.B.A., 1978
- Frank, Thomas** (1976) Research and Advanced Study Associate, Center for Research and Advanced Study; Foothill College, A.A., 1963; State University of California, B.A., 1965; University of Maine at Orono, M.A., 1975
- Franklin, Patt R.** (1970) Associate Professor of Art; Pratt Institute, B.F.A., 1962; Tulane University of Louisiana, M.F.A., 1970
- Frazier, Robert R.** (1977) Lifeline Admissions Director; University of Maine at Orono, B.A., 1968; University of Maine at Portland-Gorham, M.S.Ed., 1972
- Freeman, Ardith** (1979) Assistant Professor of Music; Eastman School of Music, B.M., 1972; M.M., 1974
- Fremd, Lynn** (1978) Assistant Director, Student Financial Aid; Towson State College, B.A., 1974; Towson State University, M.Ed., 1978
- French, Robert J.** (1969) Associate Professor of Geography and Director, Museum of Man; Dartmouth College, A.B., 1957; Northeastern University, M.Ed., 1967; Clark University, M.A., 1972
- Friedman, James** (1980) Visiting Associate Professor of Law and Legal Studies; 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
- 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 Full Professor of English; Bowdoin College, B.A., 1948; Columbia University, M.S., 1949
- Garmey, Madeleine S.** (1979) Lecturer, School of Nursing; Simmons College, B.A., 1971; Boston College, M.S., 1976
- Gavin, William J.** (1968) Professor of Philosophy; Fordham University, B.A., 1965; M.A., 1967; Ph.D., 1970
- Gayton, William F.** (1974) Associate 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, Center for Research and Advanced Study; 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; D.H.L. (Hon.), 1980
- Gish, Nancy K.** (1979) Associate Professor of English; Western Michigan University, B.A., 1964; University of Michigan, M.A., 1965; Ph.D., 1973
- Goettel, Robert J.** (1981) Director, Center for Research and Advanced Study; 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
- Gorman, Gerald E.** (1976) Associate Professor of Special Education; State College at Bridgewater, Massachusetts, B.S., 1962; Indiana University, M.S., 1964; Ed.D., 1971
- Grange, Joseph** (1970) Professor of Philosophy; St. Joseph's College, B.A., 1961; Fordham University, M.A., 1965; Ph.D., 1970
- Green, Mary E.** (1981) Circulation Associate; Trinity College, B.A., 1979
- Greenberg, Gretchen A.** (1980) Director, University Day Care Center; Ohio State University, B.S., 1972; Wheelock College, M.S., 1977
- Greene, Nathanael N.** (1980) Adult Admissions Coordinator; University of Southern Maine, B.A., 1967; University of Washington, M.L.S., 1970
- Greenleaf, Nancy P.** (1982) Assistant Professor, School of Nursing; Boston University, B.S., 1964; M.S., 1967; D.N.Sc., 1982
- Greenwood, Helen L.** (1969) Associate Professor of Biology; Northeastern University, B.S., 1958; University of New Hampshire, M.S., 1960; University of Connecticut, Ph.D., 1969
- Greer, John** (1979) Staff Development Consultant, College of Education; Gorham State University, B.S., 1950; Pennsylvania State University, M.Ed., 1954; University of Connecticut, Ph.D., 1967
- Gregory, David D.** (1972) Professor, School of Law; Duke University, B.A., 1964; University of Maine, LL.B., 1968; Harvard University, LL.M., 1972
- 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
- Gustin, Constance B.** (1979) Instructor, School of Nursing; University of Maine, B.S., 1970; Boston University, M.S.N., 1975
- 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 F.** (1968) Labor Relations Coordinator; Central Michigan University, B.A., 1952; University of Michigan, M.A., 1957
- Hanna, John G.** (1963) Professor of English; Trinity College, B.S., 1936; Harvard University, M.A., 1946; Boston University, Ph.D., 1958
- Hare, Parnell S.** (1963) Associate Professor of Earth Sciences, Physics and Engineering; University of Maine, B.S., 1956; University of New Hampshire, M.S., 1960
- Harper, Kathleen Irons** (1978) Child Development Specialist; Albertus Magnus College, B.A., 1973; Bank Street College of Education, M.S., 1978
- Hatala, Robert J.** (1980) Dean, College of Arts and Sciences, Professor of Chemistry; Juniata College, B.S., 1952; Yale University, Ph.D., 1957
- Healy, Phyllis F.** (1980) Assistant Professor, School of Nursing; Hunter College, B.S.N., 1971; University of California, M.S.N., 1972
- Hearns, Joseph F.** (1970) Associate Professor of Psychology; Boston College B.S., 1964; University of Massachusetts, M.S., 1966; Ph.D., 1967
- Heath, John R.** (1976) Assistant Professor of Computer Science; University of Maine at Orono, B.A., 1968; M.A., 1970; University of Minnesota, M.S., 1976
- Heidema, Charlotte F.** (1981) Instructor in Nursing; University of Colorado, B.S., 1967; University of Colorado, M.S., 1969
- Helms, Carl H.** (1979) Staff Development Consultant, Vocational-Personnel Staff Development Program; Pacific Lutheran University, B.S., 1962; Washington State University, M.A., 1964
- Henderson, Joyann S.** (1978) Assistant Professor, School of Nursing; University of Maine, B.S., 1970; Boston University, M.S., 1978
- Hendren, Cyrus E.** (1977) Coordinator of Information Services; Eastern New Mexico University, B.S., 1968; United States International University, M.A., 1976
- Hendry, Caroline** (1974) Coordinator of Instructional Systems, Division of Basic Studies
- Herzog, Paul M.** (1982) Special Needs Child Development Specialist, Maine Children's Resource Center; Brandeis University, A.B., 1972; Boston College, M.Ed., 1974
- Hewitt, Duncan A.** (1976) Associate Professor of Art; Colby College, B.A., 1971; University of Pennsylvania, M.F.A., 1975
- Higgins, George M.** (1971) Director, Business Management Systems; University of Maine in Portland, B.S., 1971
- Hilyard, Stevens W.** (1982) University Librarian; Bowdoin College, A.B., 1962; University of Michigan, A.M.L.S., 1964

**Hodgdon, Paula D.** (1967) Professor of Physical Education and Coordinator of Women's Athletics; 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) Director, Biomedical Research Institute; Center for Research and Advanced Study; University of Maine at Orono, B.S., 1963; B.S., 1964; Johns Hopkins University, Ph.D., 1969

**Hodson, D. Bradlee** (1973) Associate Professor of Accounting; University of Maine at Orono, B.S., 1968; University of Pennsylvania, M.A., 1969; C.P.A. (Massachusetts)

**Holman, Lewis A.** (1981) Research Assistant, Center for Research and Advanced Study; Earlham College, B.A., 1974; Franklin Pierce College, J.D., 1979

**Holmes, Peter K.** (1968) Associate Professor of Biology; Bowdoin College, A.B., 1956; Wesleyan University, M.A., 1958; University of Illinois, Ph.D., 1964

**Hopkinson, David B.** (1959) Associate Professor of General Engineering; University of Maine, B.S., 1942; University of Vermont, M.S., 1949; University of Maine, M.E., 1961; P.E. (Maine)

**Hornby, Helaine** (1974) Research and Advanced Study Associate, Center for Research and Advanced Study; Simmons College, B.S., 1968

**Horne, Edwin C.** (1971) Associate Director of Admissions; University of New Hampshire, B.A., 1958; M.Ed., 1968

**Hornstein, John** (1979) Special Needs Child Development Specialist; Colby College, B.A., 1973; Tufts University, M.Ed., 1976

**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) Chief Cataloger; Brown University, A.B., 1951; University of Kentucky, M.S. in L.S., 1955

**Howe, Elaine** (1978) Placement Specialist, College of Education

**Hudon, Edward G.** (1979) Adjunct Professor, School of Law; Bowdoin College, B.S., 1937; LL.D., 1977; Georgetown University, J.D., 1947; Master of Laws, 1950; Catholic University of America, M.L.S., 1956; George Washington University, S.J.D., 1962; Laval University, Doctor en Droit, 1976

**Hudson, Gail A.** (1980) Adjunct Associate Professor of Chemistry; University of Maine at Orono, B.S., 1973; Massachusetts Institute of Technology, Ph.D., 1977

**Hunt, H. Draper, III** (1965) Professor of History; Harvard University, B.A., 1957; Columbia University, M.A., 1960; Ph.D., 1968

**Hyde, Stephen P.** (1977) Associate Director, Intake and Evaluation and Administration, Center for Research and Advanced Study; University of Maine at Portland-Gorham, B.A., 1972; University of Maine School of Law, J.D., 1977

**Hymoff, Ira H.** (1971) Director of Counseling and Career Development; Colby College, B.A., 1965; University of Maine at Orono, Ph.D., 1970

**Irish, Eleanore** (1980) Adjunct Faculty, School of Nursing; Teachers College, Columbia University, B.S., 1949; University of Michigan, M.P.H., 1954

**Irish, Joel W.** (1971) Associate Professor of Mathematics; Colby College, B.A., 1967; University of New Hampshire, M.S., 1969; Ph.D., 1975

**Jagoliner, Philip** (1966) Associate 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

**Jellema, John** (1976) Assistant Professor of Industrial Education; Calvin College, B.A., 1960; Eastern Michigan University, M.A., 1968; Michigan State University, Ph.D., 1976

**Jensen, Helena M.** (1967) Associate Professor, School of Nursing; University of Maine, B.S., 1943; Pennsylvania State University, M.Ed., 1951

**Jepsen, Patricia A.** (1978) Veterans Services Officer; Pennsylvania State University, B.A., 1978

**Johnson, Sheila A.** (1968) Reference Librarian; Boston College, B.S., 1967; University of Maine, M.L.S., 1975

**Jones, Eugene** (1979) Assistant Professor of Music; New England Conservatory, B.M., 1965; M.M., 1967

**Jordan, Len** (1979) Lifeline Exercise Specialist; ACSM Exercise Technician Certification, 1980 (Dallas, Texas); Advanced Physical Fitness Specialist, 1979; ALS Certification, 1980

**Kading, Charles S.** (1978) Assistant Professor of Theatre; Cal State University, B.A., 1973; University of Washington, M.A., 1975; California State University-Fullerton, M.F.A., 1982

**Kandoian, Ellen Arpen** (1981) Associate Professor of Law; Yale College, B.A., 1971; Columbia University, M.A., 1972; Yale Law School, J.D., 1975; Boston University, L.L.M., 1981

**Keckemethy, Stephen** (1978) Artist in Residence, Music; Eastman School of Music, B.M. and Performer's Certificate, 1966

**Kelly, Kathleen W.** (1981) Assistant Professor, School of Nursing; Columbia University, B.S., 1968; University of Connecticut, M.S., 1974

**Kerrigan, Jean F.** (1977) Acting Academic Counselor; University of Southern Maine, B.A., 1977

**Keyser, John F.** (1974) Assistant Dean of Educational Services; University of Wisconsin, B.S., 1962; M.S., 1966

**Kim, Young** (1980) Assistant Professor of Associate Business Administration; Hunter College, B.A., 1965; M.A., 1968; Rutgers University, M.B.A., 1972

**Kirk, Albert S., III** (1977) Assistant Professor of Manufacturing/Construction; Florida College, A.A., 1961; University of Tampa, B.S., 1963; Northern Illinois University, M.S., 1967

**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, Suzanne L.** (1968) Associate University Librarian; University of Kansas, B.A., 1960; University of Denver, M.A., 1963

**Koenig, Judith R.** (1977) Acting Coordinator,

New Student Programs; University of South Florida, B.F.A., 1975

**Kormondy, Edward J.** (1979) Provost and Professor of Biology; Tusculum College, B.S., 1950; University of Michigan, M.S., 1951; Ph.D., 1955

**Kratzer, Richard O.** (1971) Professor of Mathematics; Fort Hays Kansas State College, B.A., 1957; Kansas State College of Pittsburg, M.S., 1964; New York University, Ph.D., 1971

**Kreisler, Joseph D.** (1972) Associate Professor of Social Welfare; Oklahoma University, B.A., 1947; Columbia University, M.A., 1949; M.S.W., 1959

**Kurtzman, Jackson R.** (1980) Major, U.S. Army; Professor of Military Science; Vanderbilt University, B.A., 1967; University of Southern California, M.A., 1980

**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) Coordinator of Administrative Services

**Lamb, Charles H.** (1977) Acting Director, Residence Life; State University of New York at Geneseo, B.S., 1972; State University of New York at Albany, M.S., 1973

**Lantz, Ronald** (1978) Artist in Residence, Music; Indiana University, B.M., 1967; Julliard School of Music, Graduate Studies, 1968

**Lapointe, Norman J.** (1967) Program Director, Maine Children's Resource Center and Assistant Professor of Education; University of Maine, B.S., 1956; University of Massachusetts, M.A., 1960

**Law, Eleanor** (1980) Volunteer Assistant to the Executive Director of Employee Relations; Simmons, B.A., 1950

**Lazar, Bonnie** (1975) Assistant Professor of Social Welfare; State University of New York at Buffalo, B.A., 1970; Boston University, M.S.S.S., 1972

**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

**Lehrer, Michael** (1978) Field Worker in Upward Bound; Bennington College, B.A., 1973; State University of New York, Ph.D., 1977

**Leino, Ruth M.** (1976) Head Start/Preschool Handicapped Child Coordinator; Maine Children's Resource Center; University of Maine at Portland-Gorham, B.S., 1976

**Lemelin, Robert** (1977) Coordinator of Developmental Studies, Division of Basic Studies; Southern Connecticut State College, B.S., 1959; University of Maryland, M.A., 1963; Ph.D., 1967

**Lepelley, Edith** (1965) Associate Professor of French; Lycee de Jeunes Filles de Chartres, Baccalaureat, 1950; University of Rennes (France), License est Lettres, 1956

**Levere, Ronald W.** (1976) Assistant Director, Educational Media; State University of New York, B.S., 1965; University of Connecticut, M.A., 1976

**Levine, Frank M.** (1975) Coordinator, Organized Camping Resources, Center for Research and Advanced Study; Cambridge College, A.A., 1950

**Libby, Philip C.** (1961) Services Project Coordinator; Department of Facilities Management

**Lieberman, Alice A.** (1982) Assistant Professor of

Social Welfare; University of Texas at Austin, B.A., 1974; University of Texas at Arlington, M.S.W., 1976; Washington University, St. Louis, Missouri, Ph.D., 1978

**Locke, Phyllis R.** (1968) Periodicals Librarian; University of Toronto, B.A., 1951; University of Maine, M.L.S., 1968

**Lohmeyer, James** (1980) Visiting Instructor of Associate Business Administration; University of Maine at Orono, B.A., 1972; Carnegie-Mellon University, M.B.A., 1974

**Loper, Merle W.** (1971) Professor, School of Law; Northwestern University, B.A., 1962; University of Chicago, J.D., 1965; Harvard University, LL.M., 1971

**Louden, Robert D.** (1982) Assistant Professor of Philosophy; University of California at Santa Cruz, B.A., 1975; University of Chicago, M.A., 1976; Ph.D., 1981

**Lumbert, Lanier P.** (1978) Circulation Librarian; University of Maine at Orono, B.A., 1971; University of Denver, M.A., 1974

**Lyons, Charles M.** (1973) Assistant Dean College of Education, Assistant Director, University of Maine Health Professions Education Office, and Associate Professor of Special Education; St. Francis Xavier University, B.A., 1966; University of Hartford, M.Ed., 1970; Boston University, Ed.D., 1978

**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

**Macdougall, Ronald J.** (1962) Reference Librarian; Plymouth State College, B.Ed., 1953; Rutgers University, M.L.S., 1963; Middlebury College, M.A., 1974

**MacPherson, Kathleen I.** (1974) Associate Professor, School of Nursing; Boston University, B.S., 1963; M.A., 1965; M.S., 1974

**Maiman, Richard J.** (1971) Associate 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

**Mariano, Carla H.** (1979) Associate Dean and Associate Professor, School of Nursing; University of Connecticut, B.S., 1967; Columbia University, M.Ed., 1970; Ed.D., 1978

**Martin, Joyce** (1980) Professional Staff Developer, Professional Development Center, College of Education; Simmons College, B.S., 1965; New York University, M.A., 1973

**Martin, Laurie L.** (1980) Student Financial Aid Specialist; University of Maine at Orono, B.A., 1980

**Martin, Peter J.** (1980) Assistant Professor of Music; Northern Illinois University, B.A., 1971; Wichita State University, M.M.E., 1973

**Martin, Rita N.** (1981) Instructor, School of Nursing; Baylor University, B.S.N., 1974; University of Texas at Austin, M.S.N., 1980

**Martin, Thomas A.** (1965) Assistant Professor of Physical Education and Recreation, Director of Intramurals; University of Maine, B.S., 1963; M.Ed., 1969

- Masure, Lorraine D.** (1973) Learning Center Director; York County Community College Services; Nasson College, B.A., 1970; University of Maine, M.S., 1976
- Maxwell, David H.** (1978) Assistant Professor of Music; University of Illinois, B.M., 1968; M.M., 1969; Ed.D., 1979
- Mazurkiewicz, Michael, Jr.** (1969) Associate Professor of Biology; Rutgers University, B.S., 1961; M.S., 1964; University of Connecticut, Ph.D., 1970
- McCullough, William T.** (1978) Instructor, Therapeutic Recreation; Southern Connecticut State College, B.S., 1971; M.S., 1977
- McDonnell, Polina C.** (1975) Research Assistant, Center for Research and Advanced Study; University of Maine at Portland-Gorham, B.A., 1972
- McKil, Richard L.** (1966) Professor of Associate Business and Economics; University of Maine, B.A., 1959; M.A., 1965
- McLin, Kay** (1975) Manager, Portland Bookstore and Gorham Bookcellar; Bates College, A.B., 1956; El Colegio De Mexico, M.A., 1967
- McMahon, Robert C.** (1969) Associate Professor of Economics; University of Washington, B.A., 1959; M.A., 1964; Lehigh University, Ph.D., 1970
- McManamy, Jean** (1981) Research Assistant, Center for Research and Advanced Study; Smith College, A.B., 1970; Harvard University, Ed.M., 1977
- Meyer, Linda** (1980) Associate Professor of Recreation; Bridgewater State College, B.S., 1969; University of Connecticut, M.A., 1973; University of Connecticut, Ph.D., 1976
- Milbury, Allen W.** (1963) Associate Professor of Education and Director, Educational Media Center; University of New Hampshire, B.S., 1960; Indiana University, M.S., Ed.D., 1969
- Milligan, Patricia M.** (1975) Cataloger, School of Law; Ohio State University, B.A., 1971
- Mirochnick, Linda** (1980) Instructor, School of Nursing; State University New York, B.S., 1972; M.S., 1979
- Moberg, Elizabeth** (1969) Nurse, Health Services; Worcester City Hospital School of Nursing, R.N., 1940
- 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) Associate Professor of Education; University of Maine, B.S., 1966; M.Ed., 1968; Ed.D., 1978
- 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 Industrial Education and 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
- Morrill, Robert R.** (1979) Senior Counselor, Sponsored Counseling, Center for Research and Advanced Study
- Mortensen, William G.** (1966) Director of Public Service; University of Maine, B.S., 1961; M.S., 1966
- Murphy, Kathleen** (1981) Assistant Professor, School of Nursing; Program Coordinator Fort Kent Campus; University of Maine at Portland, B.N.S., 1973; University of Pennsylvania, M.S.N., 1978
- Najarian, Haig H.** (1966) Professor of Biology; University of Massachusetts, B.S., 1948; Boston University, M.A., 1949; University of Michigan, Ph.D., 1953
- 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
- Nelson, Gordon E., Jr.** (1981) Superintendent of Services; Brown University, B.A., 1975
- Nelson, Leonard M.** (1962) Lecturer, School of Law; Harvard University, A.B., 1957; LL.B., 1960
- 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
- Neveau, Raymond P.** (1982) Professor of Finance; Providence College, A.B., 1959; Boston College, M.A., 1961; University of Pittsburgh, Ph.D., 1968
- Newell, Alma H.** (1969) Assistant to the Director, Maine Children's Resource Center
- Nicoll, Leslie H.** (1980) Instructor, School of Nursing; Russell Sage College, B.S., 1977; University of Illinois, M.S.N., 1980
- 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'Donnell, Michael P.** (1970) Professor of Education; 5 University of Maine, B.S., 1958; M.S., 1961; Syracuse University, Ed.D., 1968
- O'Mahoney, Patricia M.** (1977) Assistant Professor of Biology; Long Island University, B.S., 1971; State University of New York at Buffalo, M.A., 1974; Ph.D., 1977
- 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
- Palmacci, Viola** (1963) Family Nurse Associate, Student Health Services; Maine Eye and Ear Infirmary, R.N., 1944
- Palmer, Martha** (1976) Acting Law Librarian, School of Law; University of Maine, B.A., 1974; M.A., 1975
- Papa, Joseph B.** (1980) Director of Facilities Management; University of Rhode Island, BSEE, 1973
- Paradise, Noel E.** (1967) Professor of Psychology; University of Maryland, A.B., 1948; University of Michigan, Ph.D., 1960
- Peake-Godin, Helen** (1980) Instructor, School of Nursing; Spalding College, B.S., 1969; Emory University, M.N., 1979
- Pearson, Karen M.** (1981) Instructor, School of

Nursing; University of Maine at Portland-Gorham, B.S., 1977; Boston University, M.S., 1981

**Pearson, Linda** (1981) Adjunct Faculty, School of Nursing

**Pease, Allen G.** 1958-75,81 Director, State-University Partnership Program, Colby College, B.A., 1950; Ohio State University, M.A., 1952

**Pease, Pamela** (1977) Research Assistant, Center for Research and Advanced Study; Roger Williams College, B.A., 1975

**Peirce, John A.** (1965) Professor of Political Science; University of Maine, B.S., 1962; University of Virginia, M.A., 1965; Ph.D., 1971

**Pelletier, Suzanne I.** (1975) Acquisitions Law Librarian, School of Law; University of Maine, B.A., 1975

**Pence, John H.** (1973) Director of Personnel Services; St. Francis College, B.A., 1969

**Pendleton, James W.** (1967) Associate Professor of Earth Sciences, Physics and Engineering; Keene State College, B.Ed., 1959; Oregon State University, M.S., 1963

**Pennels, Stuart A.** (1978) Associate Director for Sponsored Counseling, Center for Research and Advanced Study; Amherst College, B.A., 1954; Columbia University, M.B.A., 1958

**Perry, Alice** (1977) Lecturer, Foreign Languages and Classics; Duke University, B.A., 1969; University of Maryland, M.A., 1972

**Petrucelli, Gerald F., Jr.** (1968) Adjunct Professor, School of Law; Boston College, A.B., 1964; LL.B., 1967

**Philippi, Harlan A.** (1972) Acting Director, University of Maine Health Professions Education Office and Professor, College of Education; University of Wisconsin, B.S., 1949; M.S., 1953; Northwestern University, Ph.D., 1962

**Phillips, William A.** (1980) Assistant Professor of Economics; Florida State University, B.S., 1961; M.S., 1975; Ph.D., 1979

**Plasencia, Gonzalo** (1981) Assistant Professor of Spanish; St. John University, B.A., 1966; Brooklyn College, M.A., 1970; City University of New York, Ph.D., 1979

**Podgajny, Marjorie T.** (1982) Lifeline Exercise Specialist; Pennsylvania State University, B.S., 1974; M.Ed., 1977; University of Pittsburgh, M.Ed., 1981

**Pollock, Stephen G.** (1979) Assistant 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

**Power, Thomas A.** (1966) Associate Professor of Theatre; University of Maine, B.S., 1964; M.A., 1968

**Powers, Kathleen** (1977) Research Assistant, Center for Research and Advanced Study; University of Maine, B.A., 1969

**Pranger, Eugene B.** (1973) Assistant Director for Management and Finance, Center for Research and Advanced Study; 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

**Putnam, Sandra T.** (1981) Assistant Professor, School of Nursing; University of North Carolina, B.S.N., 1968; University of North Carolina, M.S.N., 1977

**Quinn, Horatio A.** (1973) Director, Department of Police and Safety; University of Maine at Augusta, A.S., 1973; University of Southern Maine, B.A., 1981

**Rakovan, Lawrence F.** (1967) Associate Professor of Art; Wayne State University, B.S., 1967; Rhode Island School of Design, M.A.E., 1969

**Rand, Steven** (1972) Director, Computer Centers; University of Maine at Presque Isle, B.S., 1970

**Reno, Stephen J.** (1980) Assistant to the Provost; St. John's College, B.A., 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

**Ricci, John S.** (1981) Associate Professor of Chemistry. American International College, A.B., 1962; Columbia University, M.A., 1963; SUNY (Stony Brook), Ph.D., 1969

**Rich, Barbara** (1974) Associate Professor of Social Welfare; Columbia University, M.S.W., 1970

**Riciputi, Remo H.** (1965) Associate Professor of Biology; University of New Hampshire, B.A., 1954; M.S., 1958

**Rieser, Alison** (1980) Associate Director, Marine Law Institute, Center for Research and Advanced Study; 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

**Roberts, Rosemary A.** (1981) Research Associate; University of Reading, B.A., 1969; University of Waterloo, M.Sc., 1971; Ph.D., 1981

**Rodgers, Marianne W.** (1981) Instructor, School of Nursing; University of Maine Orono, B.S.N., 1967; Boston University, M.S., 1981

**Rodgers, Marjorie J.** (1970) Associate Director, Admissions (Coordinator of Transfer Affairs); University of Massachusetts, B.A., 1966; University of Southern Maine, M.S., 1976

**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 and Associate Dean, 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

**Romano, Paula J.** (1980) Adjunct Associate Professor of Biology; Catholic University, B.A., 1961; Duke University, Ph.D., 1974

**Rootes, Minor R.** (1966) Associate Professor of Theatre; University of California, Santa Barbara, A.B., 1954; San Francisco State College, M.A., 1961; University of Connecticut, M.F.A., 1982

**Rosen, Kenneth F.** (1965) Professor of English; Pennsylvania State University, B.A., 1962; University of Iowa, M.F.A., 1964

**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
- Rowell, Malcolm W.** (1978) Assistant Professor of Music; Keene State College, B.S., 1969; Ithaca College, M.S., 1970
- Russell, Kevin P.** (1980) Director, Department of Conferences; University of Idaho, B.S., 1973
- Russell, Robert J.** (1979) Assistant Professor of Music; Wake Forest University, B.A., 1971; University of North Carolina, M.M., 1975; University of Colorado, D.M.A., 1979
- Rutherford, Phillip R.** (1966) Professor of English; East Texas University, B.A., 1962; M.A., 1964; Ph.D., 1966
- Saldanha, Estelita L.** (1966) Professor of Psychology; University of Lisbon, B.A., 1943; University of Nebraska, B.S., 1946; M.A., 1947; Cornell University, Ph.D., 1950
- Salmon, Edward I.** (1966) Manager of Engineering and Technical Assistance; University of Maine, B.S., 1956
- Salvo, Gerard** (1979) Staff Assistant for Employee Assistance; University of Southern Maine, B.A., 1977
- Sanborn, Jane O.** (1961) Associate Professor of Psychology; Wilson College, A.B., 1942; University of California, Los Angeles, Ed.D., 1961
- Sandberg, Michael C.** (1978) Child Development Specialist, Maine Children's Resource Center, and Instructor in Education; Brandeis University, B.A., 1968; Wheelock College, M.S., 1977
- Sayers, Frances** (1981) Assistant Professor of Communication; Auburn University, B.G.S., 1974; M.A., 1977; Florida State University, Ph.D., 1980
- Schiferl, Ellen** (1980) Assistant 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
- Schwanauer, Francis** (1962) Professor of Philosophy; Technical University of Stuttgart, Dr. phil., 1959
- Schwanauer, Johanna** (1963-1965)(1968) Lecturer in German; Wellesley College, B.A., 1957
- Schwartz, Lynn** (1981) Adjunct Faculty, School of Nursing
- Schwinck, Lotte** (1969) Associate Professor of Biology; University of Tübingen, Dr. rer. nat., 1956
- Selkin, Michael** (1970) Associate Professor of English; Columbia College, A.B., 1961; Cornell University, M.A., 1963; Columbia University, Ph.D., 1975
- Shedletsky, Leonard** (1979) Assistant 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
- Shoobs, Dorothy S.** (1973) Associate Professor, School of Nursing; New York University, B.S., 1953; M.A., 1960; Ph.D., 1973
- Shryock, Sandra H.** (1977) Manager, Enterprise Information Service, Center for Research and Advanced Study; University of Massachusetts, B.A., 1970
- Shulman, Jay A.** (1978) Associate Professor, School of Law; Cornell University, B.A., 1973; Northwestern University Law School, J.D., 1977
- Silvernail, David L.** (1977) Director of Graduate Education and Associate Professor of Curriculum and Instruction, College of Education; Indiana University, A.B. 1969; M.S., 1975, Ed.D., 1977
- Silvernail, Susan M.** (1979) Coordinator, In-Town Learning Center; Ball State University, B.S., 1975; University of Southern Maine, M.S., 1980
- Simonds, Stephen P.** (1971) Director, Human Services Development Institute; Center for Research and Advanced Study; University of New Hampshire, A.B., 1948; University of Chicago, M.A., 1953
- Sippel, M. Margaret** (1981) Assistant Director, Education and Training, Center for Research and Advanced Study; University of Colorado, B.A., 1961
- Slavick, William H.** (1970) Professor of English; University of Notre Dame, B.A., 1949; M.A., 1951; Ph.D., 1971
- Small, William U.** (1967) Associate Registrar; Bowdoin College, B.S., 1949; Columbia University, M.B.A., 1951
- Smith, Alan G.** (1967) Professor of Chemistry; Mount Allison University (New Brunswick), B.Sc., 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, Stephen F.** (1980) Assistant Professor of Computer Science; Westminster College, B.S., 1975; University of Pittsburgh, M.S., 1977; Ph.D., 1980
- Snow, Roger V., Jr.** (1967/73) Director of Public Information; Williams College, B.A., 1940
- Sottery, Theodore W.** (1956) Professor of Chemistry; Dartmouth, B.N.S., 1946; University of Maine, M.S., 1956, Ph.D., 1966
- Southworth, Robert S.** (1963) Professor of Educational 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
- Sprague, Daphne** (1979) Research Assistant, Center for Research and Advanced Study; University of Maine at Orono, B.A., 1976
- 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
- Stowell, Elizabeth** (1980) Instructor, School of Nursing; University of Vermont, B.S.N., 1972; University of North Carolina, M.P.H., 1976
- 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 Information Department; University of Maine, B.S., 1960; M.Ed., 1966
- Sturner, William** (1978) Professor of Management; Fordham College, B.S.S., 5 1957; University of Wisconsin, M.A., 1960; Fordham University, Ph.D., 1966
- Sullivan, James V.** (1959) Chairman, Department of Recreation and Leisure Studies and Professor of Physical Education and Recreation; University of Maine, B.S.Ed., 1951; University of Delaware, M.Ed., 1954; Boston University, Ed.D., 1971
- Sutton, John M., Jr.** (1978) Associate Professor and Chairman, Department of Human Resource Development, College of Education; Boston College, A.B., 1961; University of Maine, M.S., 1972; Ed.D., 1976
- Sytsma, Donald** (1972) Associate Professor of Psychology; Arizona State University, B.A., 1965; University of Waterloo, Ph.D., 1971
- Talbot, Franklin** (1963) Head of Reference Services; University of Maine, B.A., 1946; Columbia University, M.S., 1949
- Taylor, Edward W.** (1975) Assistant Professor of Industrial Education; Trenton State College, B.A., 1970; M.Ed., 1972; Ohio State University, Ph.D., 1980
- Therault, Anne M.** (1975) Director, University of Southern Maine Alumni Association; University of Maine in Portland, A.B.A., 1967
- Threlkeld, Robert M.** (1977) Senior Research and Advanced Study Associate, Center for Research and Advanced Study; University of Illinois, B.S., 1965; M.Ed., 1966; Boston College, Ph.D., 1978
- Thurber, Louise L.** (1976) Adjunct Faculty, School of Nursing; Cornell University, B.S., 1964; Boston University, M.S., 1976
- Tibbetts, Kathie** (1979) Circulation and Reference Law Librarian, School of Law; University of New Hampshire, B.A., 1975
- Tiffany, Julia (Jill)** (1981) Instructor, School of Nursing; University of Washington, Seattle, B.S., 1962; Rutgers, The State University, M.S., 1967
- Tipton, Meredith** (1982) Instructor, School of Nursing; University of San Francisco, B.S.N., 1973; University of Michigan, M.P.H., 1974
- Tizon, Judy** (1972) Associate Professor of Anthropology; University of Illinois, B.A., 1965; University of California, M.A., 1969; Ph.D., 1975
- Trask, Ellen** (1966) Administrative Associate; Husson College, A.B.A., 1966
- Tryon, Phyllis A.** (1965) Associate Professor, School of Nursing; Boston University, B.S., 1958; Yale University, M.S.N. and C.N.M., 1962
- Tukey, Geraldine M.** (1970) Associate Professor, School of Nursing; Mercy College of Detroit, B.S., 1957; Boston University, M.S., 1964
- Turlo, Kathleen E.** (1980) Instructor in the College of Education; University of Maine, B.S., 1974; University of Southern Maine, M.S., 1980
- Ubans, Juris K.** (1968) Professor of Art; Director, Art Gallery; Syracuse University, B.F.A., 1966; Pennsylvania State University, M.F.A., 1968
- Ubans, Mara** (1970) Associate Professor of German; Indiana University, A.B., 1960; University of Southern California, M.A., 1962; Ph.D., 1975
- Ullman, Sallie C.** (1980) Instructor, School of Nursing; University of Delaware, B.S.N., 1973; University of Pennsylvania, M.S.N., 1979
- Valcourt, Catherine** (1982) Research Assistant, Center for Research and Advanced Study; Merrimack College, B.A., 1976; Northeastern University, J.D., 1981
- VanTine, John A.** (1981) Captain, U.S. Army; Associate Professor of Military Science; Troy State University, B.A., 1981
- Veazie, Carl E.** (1977) Senior Economist, Center for Research and Advanced Study; 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
- Vose, Thomas S.** (1978) Counselor, York County Community College Services; Colby College, B.A., 1940; University of Maine at Orono, M.S., 1952
- Walkling, Robert A.** (1969) Associate Professor of Physics; Swarthmore College, B.A., 1953; Harvard University, M.S., 1954; Ph.D., 1962
- Walton, Rowena** (1980) Instructor, School of Nursing; Michigan State University, B.S., 1960; Boston University, M.S., 1973
- 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 Employee Relations; Wheaton College, B.A., 1959; Simmons College School of Social Work, M.S.W., 1963
- Waxler, Lawrence I.** (1976) Coordinator of Contracts and Grants, Center for Research and Advanced Study; University of Maine at Portland-Gorham, B.S., 1975
- Weeks, Ernest E.** (1967) Professor of English; Bowdoin College, A.B., 1939; Tufts University, M.A., 1949; Columbia University, Ph.D., 1965
- Welty, Charles** (1979) Associate Professor of Computer Science; University of California (Berkeley), B.S., 1967; M.S., 1968; University of Massachusetts, M.A., 1977; Ph.D., 1979
- West, Ronald C.** (1981) Research Intern, Center for Research and Advanced Study; Ohio Wesleyan University, B.A., 1972
- White, Virginia S.** (1963) Nurse, Health Services; Rumford Community Hospital, R.N., 1945
- Whitmore, Allan R.** (1969) Associate Professor of History; University of Maine, B.A., 1962; Northwestern University, M.A., 1964; Ph.D., 1970
- Whitney, Sarah F.** (1973) Director, Nursing Learning Resource Laboratory, School of Nursing; Catharine Spalding College, B.S.N., 1960; Catholic University of America, M.S.N., C.N.M., 1964
- Whitten, Maurice M.** (1955) Professor of Chemistry; Colby College, A.B., 1945; Columbia University, M.A., 1949; Ohio State University, Ph.D., 1971
- Wilkinson, Warren** (1980) Research Assistant, Center for Research and Advanced Study; Harvard University, B.A., 1973; University of Maine School of Law, J.D., 1978
- Willard, Nancy L.** (1969) Assistant Professor of Physical Education and Recreation; Russell Sage College, B.S., 1958; State University College, Plattsburg, N.Y., M.S., 1967
- Williams, Michael G.** (1979) Assistant Professor of Education; San Jose State College, B.A., 1966; University of Arizona, Ph.D., 1972

**Wise, William B.** (1966) Executive Assistant to the President; University of Maine, B.S., 1961; University of Maine at Orono, M.Ed., 1971

**Witherill, Robert D.** (1966) Associate Professor of Economics; Colby College, A.B., 1947; University of Maine, M.A., 1953; M.Ed., 1962

**Wood, Duane** (1981) Dean, School of Business, Economics and Management, and Professor of Management; Rose Polytechnic Institute, B.S., 1964; Butler University, M.B.A., 1968; Indiana University, D.B.A., 1974; P.E. (Indiana)

**Woodbury, Robert L.** (1979) President; Amherst College, B.A., 1960; Yale University, M.A., 1962; Ph.D., 1966

**Wormley, Stanton L., Jr.** (1980) Assistant to the Dean, School of Nursing; Howard University, B.A., 1977; George Washington University, M.F.S., 1980

**Woshinsky, Oliver H.** (1971) Associate Professor of Political Science; Oberlin College, B.A., 1961; Yale University, M.A., 1967; M.Phil., 1968; Ph.D., 1971

**Wright, James L.** (1971) 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, School of Law; Yale, B.A., 1954; Harvard, J.D., 1960

**Yesner, David R.** (1977) Assistant Professor of Anthropology; Cornell University, B.A., 1971; University of Connecticut, M.A., 1974; Ph.D., 1977

**York, Robert M.** (1962) Professor of History; Bates College, A.B., 1937; Clark University, M.A., 1938; Ph.D., 1941

**Young, Anne P.** (1965) Professor of History; Boston University, B.S., 1943; M.A., 1944; University of Chicago, Ph.D., 1951

**Young, Jane Coolidge** (1977) Assistant Professor, School of Nursing; University of Maine at Portland-Gorham, F.N.A., 1974; Boston University, M.S., 1975

**Young, Rosalie M.** (1968) Coordinator of Publications; University of Maine in Portland, B.A., 1968

**Zaner, John A.** (1974) Associate Professor of Industrial Education; 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



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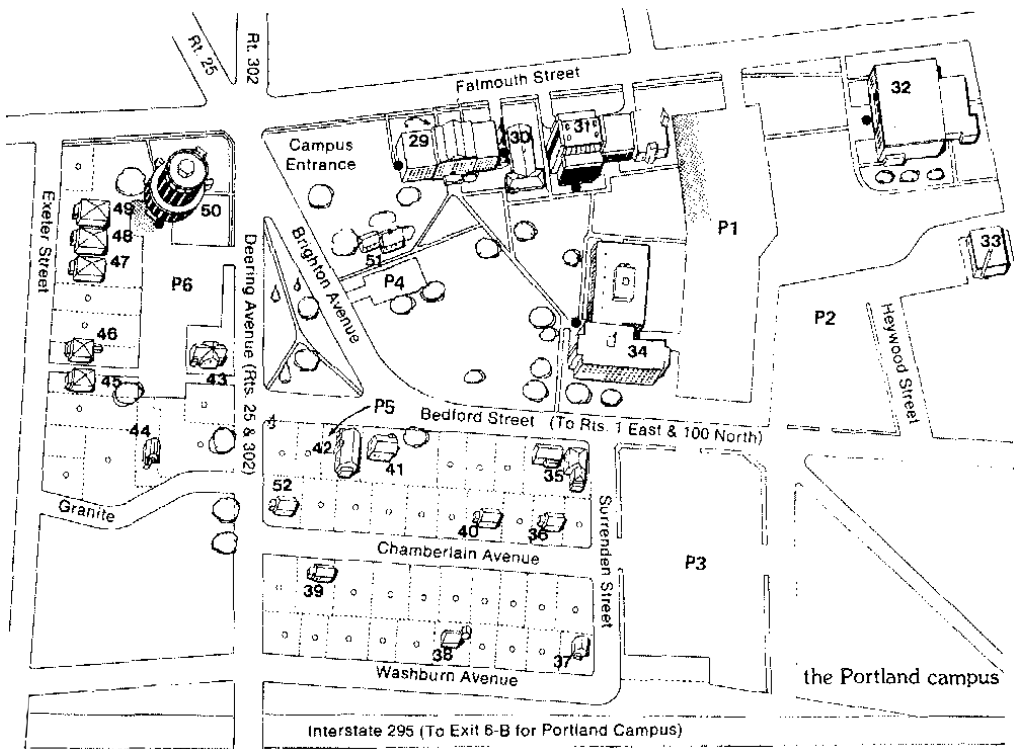
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Accessible buildings provide entrances (indicated by dots) and elevators adequate for all handicapped persons. Parking areas for the handicapped are shown by dotted areas.

#### Portland Campus

- 29 Payson Smith Hall
- 30 Bookstore
- 31 Science Building
- 32 Portland Gymnasium
- 33 Central Heating Plant
- 34 Luther Bonney Hall and Library
- 35 Student Union Buildings,  
92 & 94 Bedford Street
- 36 Faculty Offices,  
7 Chamberlain Avenue
- 37 Faculty Offices,  
3 Washburn Avenue
- 38 Faculty Offices,  
25 Washburn Avenue
- 39 Faculty Offices,  
38 Chamberlain Avenue
- 40 Cooperative Extension Services,  
15 Chamberlain Avenue
- 41 Faculty Offices,  
118 Bedford Street
- 42 Faculty Offices,  
120 Bedford Street
- 43 President's and Provost's Offices,  
22 Deering Avenue
- 44 Faculty Offices,  
11 Granite Street
- 45 Faculty Offices,  
39 Exeter Street
- 46 Maine Public Broadcasting  
Network, 45 Exeter Street

- 47 Faculty Offices,  
55 Exeter Street
- 48 Faculty Offices,  
59 Exeter Street
- 49 Faculty Offices,  
65 Exeter Street
- 50 Law School/Center for  
Research and Advanced Study
- 51 Alumni House
- 52 Administrative Offices

#### Parking

- P1 Faculty/Staff/Student Commuter
- P2 Student Commuter
- P3 Student Commuter/Resident
- P4 Faculty/Staff/Visitor
- P5 Faculty/Staff
- P6 Faculty/Staff/Visitor



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