

1976

## University of Maine at Portland-Gorham Undergraduate Catalog 1976-1978

University of Maine at Portland - Gorham

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# UNIVERSITY OF MAINE AT PORTLAND-GORHAM UNDERGRADUATE CATALOG

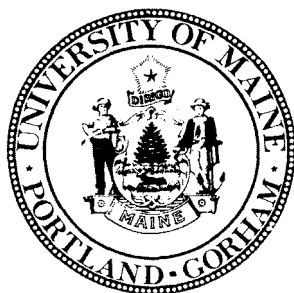


**SEPT.**  
**1976**

**MAY**  
**1978**

Ronald J. MacDonald

# **The University of Maine at Portland-Gorham**



## **Undergraduate Catalog 1976-1978**

Prepared for the UMPG Office of Admissions  
by the Office of Publications and Public Information

Please address mail requests for catalogs  
and other printed admissions material to:

ADMISSIONS OFFICE, U.M.P.G.  
96 Falmouth Street  
Portland, Maine 04103

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# University of Maine at Portland-Gorham

## Academic Calendar

### FALL SEMESTER 1976

September 8 .....	Registration
September 9 .....	First Day of Classes
November 23-28 .....	Thanksgiving Recess
December 17 .....	Last Day of Classes
December 18-23 .....	Final Examinations

### SPRING SEMESTER 1977

January 15 .....	Registration
January 17 .....	First Day of Classes
February 19-27 .....	February Recess
April 2-10 .....	April Recess
May 13 .....	Last Day of Classes
May 16-20 .....	Final Examinations
May 21 .....	Commencement

### FALL SEMESTER 1977

September 7 .....	Registration
September 8 .....	First Day of Classes
November 23-26 .....	Thanksgiving Recess
December 16 .....	Last Day of Classes
December 19-23 .....	Final Examinations

### SPRING SEMESTER 1978

January 14 .....	Registration
January 16 .....	First Day of Classes
February 18-26 .....	February Recess
April 1-9 .....	April Recess
May 12 .....	Last Day of Classes
May 15-19 .....	Final Examinations
May 20 .....	Commencement

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Chairman, Chemistry Department: Theodore W. Sottery, 350 Science Bldg., Portland†  
Chairman, Communication Department: Russell J. Kivatsky, 120 Bedford St., Portland†  
Chairman, Earth Science, Physics & Engineering: Irwin Novak, 150 Science Bldg.,  
Portland†  
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Director, Southworth Planetarium: George H. Ayers, 314 Bailey Hall, Gorham\*

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Coordinator, Women's Dance: Jeanette L. Goodwin, 207 Hill Gymnasium, Gorham\*

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## **The UNIVERSITY of MAINE at PORTLAND-GORHAM**

The University of Maine at Portland-Gorham is a regional center of the University of Maine, offering a diversity of undergraduate and graduate courses in a variety of subject areas. Approximately 9,200 students are currently registered at UMPG each semester.

The second largest institution of higher learning in the State of Maine, UMPG comprises two campuses, both on State Route 25 which crosses the Maine Turnpike one block south of Turnpike Exit 8. The Gorham campus is seven miles west of Exit 8, and the Portland campus is three miles to the east of that exit and only three blocks from Exit 6-B of I-295. Each campus provides a large gymnasium, a major library, modern classrooms, lecture halls, and laboratories.

### **RESIDENCE HALLS AND FREE SHUTTLEBUS SERVICE**

Residence Hall facilities are available only at the Gorham campus, but free shuttlebus transportation between the two campuses is provided for students, Monday through Friday throughout the academic year whenever the regularly scheduled day classes are in session.

### **MOTOR VEHICLE REGULATIONS AND PARKING FACILITIES**

Large parking lots are provided at both campuses, but all students must obtain parking stickers from the Department of Police and Safety before they can use campus parking lots. Because of the more limited parking facilities at Gorham, freshman or sophomore students who live in residence halls are not permitted to own or operate motor vehicles on the Gorham campus.

### **LIBRARY FACILITIES**

Located in Bailey Hall on the Gorham campus and in Luther Bonney Hall on the Portland campus, the principal libraries hold a combined total of over 225,000 volumes, together with some 30,000 microfilms and microfiches, 20,000 government documents, and approximately 1800 periodical subscriptions. Campus collections are complementary; books and periodicals not found in one library may be in the other. Both libraries have specialized collections of old or unusual books as well as listening facilities for the libraries' record collections.





## STUDENT AFFAIRS

The University offers a wide variety of services and activities ancillary to normal classroom experiences. In this capacity, the Student Affairs Department provides personal and vocational counseling, as well as programs for, and assistance to, co-curricular experiences and activities.

The unique physical arrangement of the University allows students to sample suburban and urban environments on both a predominantly residential and a primarily commuter campus. Students are encouraged to take an active role in the social and professional programs offered, as well as other extra-curricular activities including campus governance.

The University compiles the official *Student Handbook*, which is distributed to all available students and explains such matters

as campus policies, the governance structure, the Disciplinary Code, and the functions of the various campus offices, including the Student Union and Student Center, the Student Housing Office, and the offices providing Student Health Services, Counseling and Testing Services, Career Development, Handicapped Student Services, Veterans' Services, and other service functions.

## STUDENT ACTIVITIES

Numerous student organizations reflect a wide spectrum of honoraries, professional associations, university governance committees, social or religious organizations, volunteer services, and special interest organizations, including the University Players, several musical groups, various types of student publications, and radio broadcasting. Full details about these varied organizations are provided all students through the *Student Handbook*.

## CULTURAL ACTIVITIES

Free public shows are provided by the Southworth Planetarium on the Portland campus and the Art Gallery on the Gorham campus. The Museum of Man on the Gorham campus also provides interesting cultural opportunities. Weekly screenings of historically important film masterpieces are open to the public without charge on Thursday evenings in Bailey Auditorium on the Gorham campus. At least six regular concerts and about twenty student musical recitals are also open to the public without charge. The University Players present several plays each year with a nominal admission charge. Many programs featuring well-known visiting speakers or musical groups are sponsored each semester by the Student Activities Board. Further details are published in the *Student Handbook*.

## RECREATION — LEISURE ACTIVITIES

The Department of Recreation/Leisure Studies sponsors programs of physical recreation for all University students,

faculty, staff, and the general public. Most activities are centered at the Portland campus gymnasium on Falmouth Street. This building is a multi-purpose facility with three regulation basketball courts, squash, handball, and racquetball courts, a weight training room, dance room, an all-purpose room, sauna baths for both men and women, and locker room facilities.

Approximately twenty types of activity programs are regularly scheduled. When rooms are not reserved for scheduled activities, students may reserve courts or other facilities for individual or group use.

## INTRAMURALS

Intramural activities are voluntary and are organized to provide activity in as many different sports as student interest warrants. Special-interest groups are welcome to approach the intramural director for assistance in organizing club sports. When appropriate, competition will be arranged on an extramural basis for competition with similar teams from other colleges.





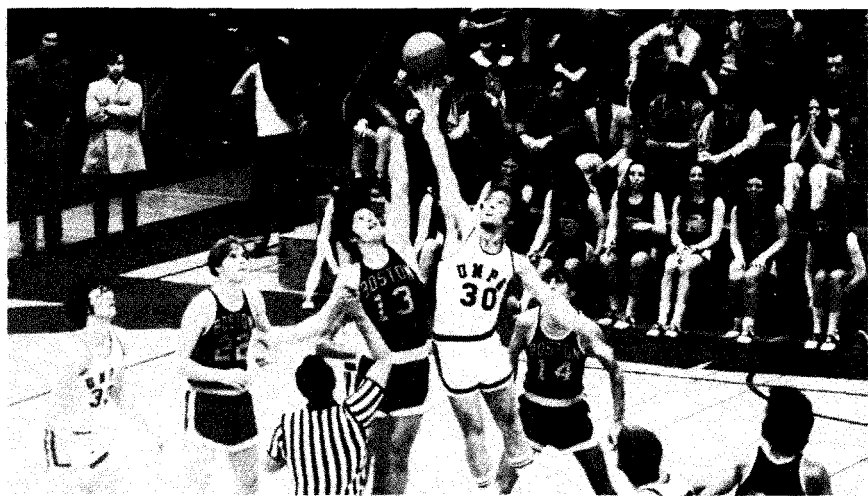
### INTERCOLLEGIATE ATHLETICS

Intercollegiate athletic competition is available for both men and women.

For men the University competes successfully in varsity cross-country, soccer, basketball, hockey, tennis, and golf as a member of the National Association of Intercollegiate Athletics (District 5), the National Collegiate Athletic Association, the Eastern College Athletic Conference,

and the New England College Athletic Conference.

For women the University holds membership in the Maine Association for Physical Education and Intercollegiate Athletics for Women, the Eastern Association for Intercollegiate Athletics for Women, and the Association for Intercollegiate Athletics for Women. Women may participate in field hockey, tennis, volleyball, basketball, gymnastics, softball, and lacrosse.





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David C. Deas

The University of Maine at Portland-Gorham is pleased to know of your interest in the University and invites your review of the information contained in this catalog. If the Admissions Office can be of further assistance, please contact the office by phone or in writing. We welcome visitors to our campus and urge that you contact the Admissions Office should you desire an appointment to tour the University facilities.

The approval of candidates seeking admission to the University is on a selective

basis. Candidates must be graduates of approved secondary schools or hold the high school equivalency diploma. The University seeks candidates whose preparatory program, scholastic achievement, interest, motivation, and personal recommendations are indicative of success with University studies. Applications are accepted for entering freshmen and transfer students in most programs for either the Fall or Spring semesters. The following is a list of Schools and Colleges, with academic majors to which students may apply.



## COLLEGE OF ARTS AND SCIENCES

American Studies  
Applied Chemistry  
Art (B.A. degree)  
Art (B.F.A. degree)  
Biology, including Pre-Med.,  
Pre-Dental and Pre-Vet.  
Communication  
Criminal Justice

Earth Science  
Economics  
English  
French  
Geography-Anthropology  
History  
Liberal Studies\*  
Mathematics and  
Computer Science

Music  
Philosophy  
Political Science  
Psychology  
Self-Designed major\*\*  
Social Welfare  
Sociology  
Theatre

\*Liberal Studies: Declaration of this 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 program common to all Engineering majors, and the first and second years in Engineering Physics. These offerings are identical in all respects to corresponding programs at the University of Maine at Orono. Students who complete either one or two years here continue their studies at UMO.

## 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:

Early Childhood  
Elementary Education  
Art Education  
Music Education  
Language Communications  
Learning Disabilities  
Physical Education Leadership  
Industrial Arts Education  
Vocational-Technical Education  
Industrial Arts Technology  
(non-teaching program)  
Vocational Technology  
(non-teaching program)

### SECONDARY EDUCATION:

\*Mathematics and Computer Science

\*See Mathematics and Computer Science information under College of Arts and Sciences.

## SCHOOL OF BUSINESS AND ECONOMICS

### BUSINESS ADMINISTRATION

The School of Business and Economics 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.

In addition to its four-year programs, the School of Business and Economics offers a two-year program leading to the degree of Associate of Science in Business Administration. Students in the Associate Degree Program may pursue a Management-Accounting Option, a Hotel, Motel, and Restaurant Option, or (through Continuing Education Division evening courses) a Real Estate Option.

## SCHOOL OF NURSING

The School of Nursing offers a four-year program leading to the degree of Bachelor of Science, with a major in nursing.

In addition to the usual University fees and expenses, nursing students must purchase uniforms (approximately \$55.00) during the sophomore year. They must also provide themselves with a car for one semester during the senior year for use in the course in Community Health Nursing.

## 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 at in-state tuition rates. 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 in the New England Regional Student Program in 1976.

PROGRAM	OPEN IN 1976 TO STUDENTS FROM:
Two-Year Program	
Two-Year Business Administration (Associate Degree Program)	Conn., R.I., Vt.
Four-Year Program	
Art Education	Conn., R.I.
Criminal Justice	Conn., Mass., N.H., R.I., Vt.
Industrial Technology	Conn., N.H., R.I.
Industrial Arts Education	Vt.
Social Welfare	Conn., Mass., R.I.

### 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 established.

#### COLLEGE OF ARTS AND SCIENCES

English	4 Units
*Mathematics	3 Units
**Sciences	2 Lab Units
History/Social Science	2 Units
***Foreign Language	2 Units
*Mathematics Majors	4 Units
**Biology and Premedical Majors	3 Lab Units
***Foreign Language Majors	3 Units

An Early Admission Program, described on the next page, is available for selected students who have completed their junior year of high school and who display both the intellectual capacity and social maturity to succeed in a university program of the College of Arts and Sciences.

#### SCHOOL OF BUSINESS AND ECONOMICS

##### Four-Year Baccalaureate Program

English	4 Units
Algebra	2 Units
Geometry	1 Unit
Elective	9 Units

##### Two-Year Associate in 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.

## COLLEGE OF EDUCATION

English	4 Units
*Mathematics	3 Units (2 Algebra, 1 Geometry)
Sciences	2 Lab Units
History/Social Science	2 Units
Foreign Language	Optional

\*Mathematics majors in Secondary Education 4 Units

## SCHOOL OF NURSING

English	4 Units
Mathematics	3 Units (Algebra I, II, Geometry I)
Sciences	2 Lab Units (Biology, Chemistry)
History/Social Science	2 Units
Foreign Language	Optional

### 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 full-fledged 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 are desirous of receiving 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 the 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, two years of Mathematics beginning at the introductory algebra level; one year of social science/history, one year of biology, chemistry, or physics, and one year of a foreign language. In addition, the applicant should register for and take the Scholastic Aptitude Test (SAT) at the earliest possible date and arrange to have the scores for-

warded to the Director of Admissions at the University. The American College Test (ACT) may be submitted in lieu of the SAT for admission purposes.

The student should confer with his high school guidance counselor or principal regarding eligibility to participate in the Early Admission Program. The student and the principal/counselor will complete the Early Admissions Application, and along with an official transcript, submit it to the Admissions Office at UMPG.

The CAS Admissions Advisory Board will review each Early Admission Application. Those students approved for this program are assured admission to the University upon completion of the standard University admission form and receipt of the application fee. Students thus admitted under this program are accorded all the rights and privileges of entering freshmen. Special advising will be available through the CAS 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. Under certain circumstances a student will be considered for other academic semesters. Application forms must be submitted as early as possible. For Fall Semester, all Early Admissions applications should be received by April 15.

Submit completed application forms and address questions to the Director of Admissions, University of Maine at Portland-Gorham, 96 Falmouth St., Portland, Maine 04103.

**COLLEGE ENTRANCE  
EXAMINATION BOARD  
AND  
AMERICAN COLLEGE TESTING**

1. STUDENT DESCRIPTIVE QUESTIONNAIRE/ADMISSION TESTING PROGRAM. As a member institution of the College Entrance Examination Board the University of Maine at Portland-Gorham endorses and strongly urges all freshman applicants to provide complete information on the *Student Descriptive Questionnaire* of the *Admission Testing Program*. Applicants for admission to UMPG *must* have all test results reported directly from either the Educational Testing Service or the American College Testing program.

2. The University of Maine at Portland-Gorham Admissions Office will accept either Scholastic Aptitude Test & Achievement Test scores, or American College Test scores for candidates seeking admission. *All candidates* applying for admission must submit test scores from either the Scholastic Aptitude Test & Achievement Test battery or the American College Testing program unless arrangements for testing to be waived have been approved by the Director of Admissions.

3. Applicants should work with the high school guidance office in registering for and counseling in the preparation for the required testing.

4. Candidates submitting Scholastic Aptitude Test & Achievement Test results are required to submit two Achievement Scores in support of their application. One test should be either the English Composition Achievement or the Literature Achievement. When possible, the second test should relate to the student's field of study, such as history, mathematics, foreign language, a science, etc.

5. Veterans or applicants who have been out of school at least three years and students applying to the Associate Degree Program in Business Administration are not required to take the Achievement Tests.

6. High School juniors are encouraged to take achievement tests in non-continuing subjects on the June test date. Guidance Counselors should be consulted for details.

**REPORTING TEST RESULTS**

For equal consideration candidates are required to submit all test results no later than the January test date of the SAT/ACH test battery. Scores must be submitted directly to the University Admissions Office from the Educational Testing Service, Box 592, Princeton, New Jersey 08540 or Box 1025, Berkeley, California 97401, or The American College Testing Program, P.O. Box 451, Iowa City, Iowa 52240.

Dates for the Scholastic Aptitude Test and Achievement Tests 1976-77.\*

November 6, 1976

December 4, 1976

January 22, 1977

March 26, 1977

May 7, 1977

June 4, 1977

\*Both the SAT and certain Achievement Tests will be available on each of these test dates in 1976-77. Candidates may select one of these dates for taking the SAT. They must select another of these dates for the Achievement Tests.

**APPLICATION PROCEDURE**

1. Obtain a copy of the University brochure and the necessary application form from the Office of Admissions or from the high school principal or guidance counselor.

2. Select the program which promises fulfillment of personal ideals, interests and abilities. Be ready to take specific entrance examinations upon request of the Art and Music Departments, or the Department of Industrial Education and Technology if you are applying to one of these programs.

3. Mail the completed application and application fee of \$10.00 (non-refundable) to the Director of Admissions, University of Maine at Portland-Gorham, 96 Falmouth Street, Portland, Maine 04103.

4. The high school should forward to the Admissions Office a transcript of academic

work completed along with recommendations. Student copies cannot be accepted for evaluation.

5. Transfer applicants must have official transcripts sent to the Admissions Office for all post high school work attempted. Student copies cannot be accepted for evaluation.

6. All required test results (SAT's and Achievements or ACT scores) **must be sent directly from the testing service to the University Admissions Office.**

7. Candidates are urged to contact the Admissions Office to determine if all required materials have been received. This should be done by mid-December for January admission and by mid-May for September admission. The Admissions Office will endeavor to contact students when documents are missing from files. However, the heavy work load often times delays correspondence to individual candidates.

8. To receive equal consideration with other candidates, applications to most undergraduate schools and departments along with supporting credentials should be on file with the Admissions Office by December 1st for January admission and by April 15th for September admission. Candidates to the School of Nursing and the departments of Art, Music, and Industrial Arts must apply much earlier in the admission year.

### ADMISSION PROCEDURES

1. After the student's application has been reviewed and evaluated, the Director of Admissions will notify the applicant of the appropriate decision.

2. Upon acceptance, the student will be required to make appropriate deposits. A deposit of \$55.00 will be required of each residence hall applicant. A deposit of

\$25.00 is required of all commuting students. Refund requests will be honored by the University to June 1 for September enrollment and to January 1 for the spring semester if the request is received in writing to the Director of Admissions.

3. Admission to the University is not final until the student has satisfactorily completed all Admissions Office requirements.

4. Physical and mental health are basic considerations in admitting any applicant to the University, but a physical handicap, such as confinement to a wheelchair or blindness is not in itself a necessary barrier to admission. All classroom buildings and two dormitories are equipped with ramps for wheelchair access. Most elevator buttons are coded in braille. An applicant reporting a physical handicap will be scheduled for an interview with the University Coordinator of Handicapped Services, who will in turn submit recommendations to the Director of Admissions. In consultation with other University offices the Admissions Office reserves the right to refuse admission to any candidate it feels that the University cannot adequately assist in the completion of degree work.

5. The University reserves the right to cancel the acceptance of any application it deems necessary for academic or personal reasons.

6. Interview: With the exception of candidates applying to the Art, Music, and Industrial Arts and Vocational-Technical programs, interviews are optional. If students desire an interview, they should arrange for one with the Admissions Office. Students are encouraged to visit the University and acquaint themselves with its facilities.

## DEPARTMENTAL REQUIREMENTS FOR ADMISSION

**ART** Applicants for admission to the Art Program at the University are required to submit to the Art Department a portfolio of original art work. This portfolio should consist of 20 works in varying media, including one life-size self-portrait drawn from life in any media of the student's choice, together with a selection which indicates the applicant's current interests and abilities. Prints, drawings, paintings, posters, photographs, films, and slides may be included. Any sculpture or three-dimensional works may be represented by photographs.

The following dates have been established by the Art Department for the submission of the portfolio and the Student Art questionnaire for 1976-77.

Friday, November 12, 1976\*

Friday, March 11, 1977

\*The November 12th date is primarily for transfer students applying for January admission. It is possible, however, that early candidates to the Art program for September admission may prefer to use the November date rather than waiting for waiting for the March 11 date.

**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. Written music aptitude and achievement tests will also be administered. Students will be notified by the Music Department of the appropriate procedures to follow and the dates available for on-campus visitations.

**INDUSTRIAL ARTS** Applicants for the Industrial Arts program should have had a minimum of one unit in either industrial arts or drafting (graphics) in high school. Students will be notified by the Department of Industrial Arts of the appropriate procedures to follow and the dates available for on-campus visitations.

**VOCATIONAL-TECHNICAL** Applicants for the Vocational-Technical Education or Vocational Technology programs are required to submit affidavits of a minimum of three years of occupational experience and appear for a personal interview.

## 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, located in the Office of Counseling and Career Planning, Payson Smith Hall, Portland campus.

## FOREIGN STUDENTS (Undergraduates)

Candidates applying for degree status at the University are required to submit official school and college transcripts to the Director of Admissions. 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 applying 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.

Financial assistance for foreign students applying to the University is extremely limited. It is, therefore, regrettable that the University cannot encourage greater numbers of foreign applications. Foreign students who have met academic requirements and require no financial assistance from the University may expect more favorable consideration.

## ADMISSION TO ADVANCED STANDING — TRANSFER STUDENTS

Admission to the University of Maine at Portland-Gorham as a transfer student is on a selective basis and is controlled by classroom, dormitory, and quota space. A

student who has attended any institution of learning beyond high school is classified as a transfer student even though the student may in the final analysis not transfer in credits. A student accepted for admission from an accredited institution will receive advanced standing credit when the work is "C" grade or better in courses corresponding to those offered by the University of Maine at Portland-Gorham and if applicable to the student's program of study.

Students applying for admission from any institution which is not accredited by the New England Association of Schools and Colleges or any other regional accrediting agency must have a 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 acceptance of credit from a non-accredited institution.

Credits accepted from non-accredited institutions must be "B" grades or better and applicable to the student's program of study.

All applicants for admission to advanced standing must complete the same forms as an incoming freshman and request that official transcripts be mailed to the Director of Admissions from any previous colleges attended. Student copies are not acceptable. Copies of catalogs including course descriptions must accompany all transcripts

for evaluation.

Students seeking advanced standing must submit, in addition to the application, a high school transcript, Scholastic Aptitude Test results, and a character recommendation from the Dean of Students Office of the college or colleges previously attended.

### **ADMISSION TO ADVANCED STANDING WITHIN THE UNIVERSITY OF MAINE SYSTEM**

Applications may be procured at the Admissions Office of any University of Maine campus. Brochures describing transfer information are also available in each Admissions Office. 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.

Students must have a minimum of 2.0 in a parallel degree program on a 4.0 scale for transfer consideration to this campus.

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 non parallel programs.

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.

## **CREDIT BY EXAMINATION**

### **ADVANCED PLACEMENT**

It shall be the policy of the University of Maine at Portland-Gorham to grant credit 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 with a score of either four (well-qualified) or five (very well-qualified). A score of three will be examined for credit on an individual basis by the department concerned.

### **COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)**

#### **1. General Examination**

The schools and colleges at the University of Maine at Portland-Gorham will grant credit for the general College Level Examination Program (CLEP) examinations as follows:

<i>Title of Examination</i>	<i>Credit For</i>	<i>Credit Hours</i>
English	ENG 100	3
Humanities	General Education	6

Social Science	General Education	6
Mathematics	General Education	6
Science	General Education	6
		<hr/> 0-27

A score of 540 or better will be necessary to receive credit.

The five general examinations are designed and intended primarily for incoming freshmen rather than for typical transfer students.

## 2. Subject Examination (CLEP)

**COLLEGE OF ARTS AND SCIENCES**—Certain academic departments within the College of Arts and Sciences 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 AND ECONOMICS**—The School of Business and Economics 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 and Economics.

**SCHOOL OF NURSING**—Available for advanced placement is credit in subject examinations offered through CLEP. Interested candidates should discuss their eligibility for taking these examinations with the Dean of the School of Nursing. The School of Nursing also offers credit-by-examination in certain courses of the nursing major for advanced placement. For more details, interested students should contact the appropriate Department Chairman.

## FINANCIAL AID

Students seeking admission to the University of Maine at Portland-Gorham who anticipate requesting financial aid must apply through the College Scholarship Service Program, Box 176, Princeton, New Jersey 08540. The Parents' Confidential Statement may be secured through the local high school guidance office or by writing to the Financial Aid Office at the University of Maine at Portland-Gorham, College Avenue, Gorham, Maine 04038.

In addition, the University requires the submission of the BEOG (Basic Education Opportunity Grant) application for financial aid candidates. Information is available from the Financial Aid office or the high school guidance office.

Married students applying for financial assistance must fill out the Student's Financial Statement and return it to the College Scholarship Service, Box 1501, Berkeley, California 94701. This form is available in the Financial Aid office of the University of Maine at Portland-Gorham, College Avenue, Gorham, Maine 04038.

## READMISSION

Free students attending days who withdraw from all course work at the University of Maine at Portland-Gorham during any

semester must apply for readmission through the undergraduate Admissions Office, either personally at 228 Deering Ave., or by mail to:

ADMISSIONS OFFICE, UMPG  
96 Falmouth Street  
Portland, Maine 04103

## SPECIAL STUDENTS (Non-Degree)

Special Students are enrolled on a space-available basis each semester. Candidates interested in special student status must file a Special Student application with the University.

Please contact the following offices to secure further information:

College of Arts & Sciences - Dean's Office,  
113 Bonney Hall, UMPG, 96 Falmouth  
Street, Portland, Maine 04103.

School of Business & Economics - Dean's  
Office, 100 Payson Smith Hall, UMPG,  
96 Falmouth Street, Portland, Maine  
04103.

College of Education - Dean's Office,  
Bailey Hall, UMPG, Gorham, Me. 04038.

School of Nursing - Dean's Office, 39  
Exeter Street, UMPG, 96 Falmouth Street,  
Portland, Maine 04103.



## FINANCIAL INFORMATION

### STUDENT EXPENSES: Academic Year of 1976-77

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.

**APPLICATION FEE** — An Application Fee must accompany each application at each campus unless the student has previously matriculated at this campus .....\$ 10.00

**MATRICULATION FEE** — A one-time fee for each student that elects to pursue a degree program within the University ..... 15.00

**COMMENCEMENT FEE** — A one-time fee for each degree candidate, to be paid 6 weeks prior to the commencement ..... 10.00

#### ANNUAL EXPENSES: FULL-TIME UNDERGRADUATE STUDENTS

*Undergraduate Tuition for a Resident of Maine* ..... 600.00  
(Tuition for Non-Residents, as defined below, is \$1800.)

##### *Student Activity Fee*

(required of all full-time undergraduates taking twelve hours or more) ..... 24.00

*Books and Supplies* — Textbooks, personal laboratory equipment, etc., are not furnished by the University. Annual costs vary from \$150 to ..... 220.00

*Personal Expenses* — Over and above food and lodging, recent estimates indicate an annual average of at least ..... 400.00

*Voluntary Health Insurance* — Optional but strongly recommended ..... 39.00

#### ADDED EXPENSES FOR DORMITORY RESIDENTS

Board and Room for Dormitory Residents (per academic year-double room ..... 1,395.00  
-single room ..... 1,515.00

#### ORIENTATION FEE

— All incoming Full-time day Freshmen ..... 10.00  
— All incoming full-time day transfer students ..... 5.00

**OPTIONAL MEALS FOR OFF-CAMPUS RESIDENTS:** \$716 per academic year.

#### LATE REGISTRATION

*A Late-Registration Fee of \$10.00 is charged a student who registers after the prescribed day of registration. Students must register each semester, one semester at a time.*

#### TUITION FOR OTHER CLASSIFICATIONS OF STUDENTS

*Registration Fee* — A registration fee of \$5 per semester is charged each part-time daytime student, each Continuing Education student, and each Summer Session student.

*Continuing Education Division and Summer Session* — Summer Session students are charged \$30 per semester hour (no maximum) for courses carrying degree credit. Continuing Education students are charged \$30 per semester hour for courses carrying degree credit, up to a maximum of \$300 per semester. The tuition, fees, and related maximums set forth herein do not apply to non-degree credit work. CED bulletins announce the fees for their non-degree courses.

*Other Part-time Students* — Registration fee of \$5 per semester, plus tuition for residents of Maine of \$30 per semester hour up to a maximum of \$300 per semester, or tuition for non-residents of Maine of \$90 per semester hour up to a maximum of \$900 per semester.

*School of Law* — Tuition for residents of Maine and non-residents covered by the New England Pact is \$900 per year; tuition for other non-residents is \$2350 per year. The \$15 Application Fee and \$15 Matriculation Fee are also charged. For other expenses, see the School of Law catalog.

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

*Tuition and Fee Grants* — Tuition and fee grants will be restricted to those specifically authorized by the Board of Trustees and will include tuition grants for persons over age 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 \$30 is due. These deposits will be applied toward the student's account when the student registers. (They should not be confused with the matriculation fee of \$15, which is a non-refundable charge, or prepayments made on accounts which are not refundable.)

The deposits are forfeited in case 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.

Upperclassmen desiring to live in a resident hall must pay a room deposit of \$60 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, but prior to August, \$30 will be non-refundable. After August 1 the full \$60 is non-refundable.

### **PAYMENT OF BILLS:**

**All University bills**, including those for room and board in University buildings, are due and payable on or before August 23 for the Fall Semester and on or before January 3 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 the **University of Maine**.

### **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 following schedule:

#### **Fall Semester**

1/2 the total semester bill at registration

#### **Spring Semester**

1/2 the total semester bill at registration

Balance to be paid in three monthly installments

The privilege of using this program will be withdrawn if payments are not made promptly as scheduled. There is a \$6.00 participation fee.

### **UNIFORM REFUND POLICY**

#### **I. Degree-Credit Programs (Other than Summer Session)**

- 1. Tuition.** Tuition may be refunded in accordance with the scale and provisions set forth below for students withdrawing during the first six weeks of a term.

- a. Scale.** Attendance period is counted from first day of class and includes weekends and holidays. The refund will be reckoned from the date on which the student notifies the Registrar.

	<i>Refund Percentage</i>
1st week .....	80%
2nd week .....	60%
3rd week .....	40%
4th week .....	30%
5th week .....	20%
Over five weeks .....	No Refund

**b. Provisions.**

- (1) A student enrolled in a full-time program who drops or adds a course and continues to be in a full-time program will have no financial adjustments of tuition.
- (2) In no case will tuition be reduced or refunded because of voluntary absence from classes.
- (3) Tuition adjustments attributable to involuntary absence, for example, extended illness or military service, will be processed by the respective campus of the University of Maine on a case-by-case basis.

**2. Fees.** University fees are not refunded.

**II. Degree-Credit Programs (Summer Session)**

- 1. Tuition.** Tuition may be refunded in accordance with the scale and provisions set forth below for students withdrawing.

- a. Scale.** Attendance period is counted from first day of class and includes weekends and holidays. The refund will be reckoned from the date on which the student notifies the Registrar.

	<i>Refund Percentage</i>
<b>(1) Six-week Courses</b>	
1st week .....	75%
2nd week .....	50%
3rd week .....	25%
After 3rd week .....	-0-
<b>(2) Three-week Courses</b>	
1st week .....	50%
After 1st week .....	-0-

**b. Provisions**

- (1) In no case will tuition be reduced or refunded because of voluntary absence from classes.
- (2) Tuition adjustments attributable to involuntary absence, for example, extended illness or military service, will be processed by the respective campus of the University of Maine on a case-by-case basis.

**2. Fees.** University fees are not refunded.

**III. Dining and Residence Activities.** The board and room charges will be refunded in accordance with the following wherein the student is withdrawing from the institution:

**1. Scale**

- a. Board.** Board charges for a student leaving the residence halls or withdrawing from the University will be at the full daily rate through the date of clearance and for one-half the daily rate for the remaining full days.

## b. Room

### (1) Normal Academic Year (Fall & Spring Semesters)

	<i>Refund Percentage</i>
1st and 2nd weeks .....	80%
3rd and 4th weeks .....	60%
5th and 6th weeks .....	40%
7th, 8th, and 9th weeks .....	20%
Over 9 weeks .....	No Refund

### (2) Summer Session

#### (a) Six-week Courses

1st week .....	75%
2nd week .....	50%
3rd week .....	25%
After 3rd week .....	-0-

#### (b) Three-week Courses

1st week .....	50%
After 1st week .....	-0-

2. **Exceptions.** Exceptions will be made only in cases of illness, extreme hardship, or when an occupant leaves for the convenience of the University. The charges in these cases will be determined by the University according to the circumstances of each case.

## RULES GOVERNING RESIDENCE

A student is classified as a resident or a non-resident for tuition purposes at a 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. Vice President for Finance and Administration (where applicable)
  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 possess 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 15 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.

## **FINANCIAL ASSISTANCE**

The basic premise of the student financial aid programs at the University of Maine at Portland-Gorham is that the parents are primarily responsible for meeting the expenses of their son's or daughter's University education. In addition, the student is expected to contribute from personal summer earnings and/or savings. It is important, therefore, that parents and students work out a financial plan in advance of University attendance. When such a plan indicates that there is need for financial aid, the University may assist with counseling directed toward better management of family resources and, if needed, supplement those resources with some combination of loans, scholarships, and part-time employment.

### **WHEN AND HOW TO APPLY**

Although the University has no deadline for financial aid applications, students are encouraged to apply as early as possible. Most find it convenient to apply for financial assistance at the same time they apply for admission. The University subscribes to and uses the services and research of the College Scholarship Service

(CSS), a division of the College Entrance Examination Board, to determine the amount of money parents can reasonably be expected to contribute toward the student's expenses. A College Scholarship Service financial statement, which must be completed by all aid applicants, may be obtained through any high school guidance office or a University of Maine Student Financial Aid Office.

In addition to the College Scholarship Service financial statement, all undergraduate students who do not hold a baccalaureate degree must apply for a Basic Educational Opportunity Grant. The appropriate application form is also available from either a high school guidance office or a University of Maine Student Financial Aid Office.

### **ADDITIONAL INFORMATION**

Detailed application instructions and descriptions of the various forms of financial assistance available to University students may be found in the University of Maine at Portland-Gorham Admissions Tabloid. Copies of this are available through either the Admissions Office or the Student Financial Aid Office.

## UMPG Academic Policies — 1976-1977

### GENERAL REQUIREMENTS FOR ALL BACCALAUREATE CANDIDATES

The General Education Requirement of the University consists of 30 semester hours, 24 hours of which consists of four 6-hour groups of courses, each group either interdisciplinary or chosen from a different one of the four areas of (1) Humanities, (2) Fine and Applied Arts, (3) Science and Mathematics, and (4) Social Sciences. The prefix-codes of acceptable course selections are listed below.

The remaining six hours, designated Area-5 General, shall be selected from one, or a combination of the four academic groupings, SCOGIS courses, CAS designation, or when school or college requirements permit, PE and REC Activity courses.

With the exception of K-P or GE majors, departmental courses in the student's major may not be applied toward fulfillment of the General Education Requirement.

#### AREA 1: HUMANITIES —

##### 6 credits from:

CLS	(Classics)
CPEN	(Comparative Literature)
ENG	(English)
FRE	(French)
GMN	(German)
GRK	(Greek)
LAT	(Latin)
PLY	(Philosophy)
SPN	(Spanish)

#### AREA 2: FINE AND APPLIED ARTS —

##### 6 credits from:

ARTH	(Art History and Appreciation)
ARTS	(Art Studio Courses)
COM	(Communication)
DNCE	(Dance)
MUS	(Music)
THE	(Theatre)

#### AREA 3: SCIENCE AND

##### MATHEMATICS — 6 credits from:

ASTR	(Astronomy)
BIO	(Biology)
CHEM	(Chemistry)
CS	(Computer Science)

ESCI	(Earth Science)
GEOL	(Geology)
GSCI	(General Science)
MET	(Meteorology)
MS	(Mathematics)
OCN	(Oceanography)
PHYS	(Physics)
PSCI	(Physical Science)

#### AREA 4: SOCIAL SCIENCES —

##### 6 credits from:

ANY	(Anthropology)
CJ	(Criminal Justice)
ECON	(Economics)
GEOG	(Geography)
HIST	(History)
POL	(Political Science)
PSY	(Psychology)
SOC	(Sociology)
SWE	(Social Welfare)

#### AREA 5: GENERAL —

##### 6 credits from:

Any courses from the above academic groupings

College of Arts and Sciences (CAS) courses

\*Physical Education (PE) or Recreation/Leisure (RLS) courses

*\*The College of Arts and Sciences requires no Physical Education courses but accepts optional PE or RLS credits in Area 5. The School of Business and Economics requires no PE courses but accepts optional PE or RLS credits in Area 5 for 4-year Business Administration and Accounting majors only. The School of Nursing requires 2 credits of Physical Education and/or Recreation/Leisure, and accepts in Area 5 not more than 2 added optional PE or RLS credits. The College of Education requires a year of Physical Education but accepts no PE credits as applicable to Area 5. (Certain students in the School of Nursing or College of Education may be exempted from all PE requirements under criteria described in this catalog having to do with the School of Nursing or College of Education.)*

## **UMPG SYSTEM OF COURSE CODING**

- 10-99 No degree credit
- 000-099 Associate Degree program
- 100-199 Introductory level
- 200-299 Intermediate level
- 300-399 Intermediate level
- 400-499 Senior level, others by permission
- 500-599 Graduate level
- 600-699 Professional graduate level as in the School of Law

## **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. Whenever, in the opinion of the instructor, a student's absences impair the quality of work, the instructor will report this fact to the Dean of the appropriate School or College.

## **EXAMINATION POLICY**

The examination policy is left to the discretion of the individual faculty member to inform the students in each class of the examination requirements for that class. A final course-evaluation will be scheduled for all classes at a designated time and place during examination week.

Usually, two to four preliminary examinations are administered in each course and count heavily on the final grade. Final examinations are normally scheduled at the end of each semester according to a regular schedule. Finals cannot be given before the regularly scheduled examination period.

## **ABSENCE FROM A FINAL EXAMINATION**

An absence from a final examination must be made up during the semester immediately following the one in which the absence occurred, unless the time limit has been extended by the Dean.

Students who miss a final examination and are failing the course at the time may 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 REPORTS**

Regular grade reports are sent to all students at their official addresses at the end of the semester. Final grades cannot be secured in advance from the Registrar.

## **REGISTRATION**

Registration is conducted by the Office of the Registrar and includes course selection, verification of student biographical data and payment of University charges. Newly admitted undergraduate degree candidates are notified by mail by the Office of Admissions and the Registrar of their scheduled time of registration. Continuing students pre-register by class level in late April for a Fall Semester and in late November for a Spring Semester. Special students register only after all degree candidates have had the opportunity to register. No student may register for more than 18 credit hours in one semester without the permission of the adviser and appropriate Dean. No registration is complete without the satisfaction of the related financial obligation to the University.

## **THE GRADING SYSTEM**

Grades at the University are given in terms of letters 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. Required work must be completed by arrangement with the instructor but not later than the end of the next regular academic semester following the Incomplete. At this time the "I" will be replaced by a grade of A,B,C,D, or F as determined by the instructor.  
 W—Withdrawal during the second five weeks of a semester. If a student has not officially withdrawn by the end of the tenth week of the course, one of the above regular grades, normally F, will be assigned. The W notation may be an option after the tenth week under unusual circumstances if so determined by the instructor and the Dean.  
 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 course on a non-credit basis.

### GRADE-POINT AVERAGES

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

- A—4 grade points per credit hour
- B—3 grade points per credit hour
- C—2 grade points per credit hour
- D—1 grade point per credit hour
- F—0 grade points

To compute the grade-point average for a semester, first multiply the grade points earned in each course by the number of credit hours assigned to that course. The resulting product is the number of quality points for that course. Then divide the total number of quality points earned during the semester by the total number of credits carried in that semester. The result is carried out to two decimal places to produce the grade-point average for that semester.

To compute the cumulative grade-point average, divide the total quality points

earned by the total credits carried in all semesters.

At the end of each semester, full-time students with grade-point averages of 3.2 or better are placed on the Dean's list.

### REPEATING COURSES

When a student repeats a course and earns a grade of A,B,C,D,F or P the initial grade remains on the transcript but only the later grade is used in computing the grade-point average or for credit.

### ADD-DROP

Once a student has completed registration, 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 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.

### 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.

### PASS-FAIL OPTION

The purpose of the pass-fail grade option is to encourage students to broaden their educational experiences without fear of harm to 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 (A,B,C, or D) on file, but post



'P' on the student's grade report and academic record. Grades of 'F' or 'I' will be posted as received.

Outside of courses in the major or minor area of concentration, or courses taken to satisfy the General Education Requirements, an undergraduate student is permitted to 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.

Required courses in the Core Curriculum and in the student's major may not be taken pass-fail; and only one course in the minor may be taken pass-fail. 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. An undergraduate in the College of Education may register for a total of 18 hours of pass-fail credits in addition to possible pass-fail credits for Student Teaching and the related seminar. Student Teaching and the related seminar are considered as a single bloc for election of the pass-fail option.

### MINIMUM GRADE POLICY

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

	<i>Cumulative Minimum Grade-Point Averages</i>	
	<i>For Good Standing</i>	<i>For Probationary Standing</i>
Associate Degree Programs		
Completion of 15 credit hours	1.60	1.35
Completion of 30 credit hours	1.80	1.60
Completion of 45 credit hours	2.00	1.80
Freshmen: end of 1st semester	1.35	1.15
Freshmen: end of 2nd semester	1.60	1.35
Sophomores: end of 1st semester	1.80	1.60
Sophomores: end of 2nd semester	2.00	1.80
Juniors and Seniors: end of each semester	2.00	1.80

Students with majors or minors in English or History in the baccalaureate program of the College of Arts and Sciences, or the Secondary Education program of the College of Education, or the Social Sciences area 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

### 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 that course and must assume all financial obligations associated with it.

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

fulfillment of the major or minor requirements in these programs.

Students in the Nursing Major must achieve a 2.0 cumulative grade-point average in order to enter the clinical courses. D grades will not count toward fulfillment of the major requirements in the Nursing Program.

## 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 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 less than 12 or more than 18 credit-hours.

For standing as a sophomore, a student shall have completed at least 19 percent of the hours required for graduation, for junior standing 44 percent, and for senior standing 69 percent, except in the School of Nursing wherein the respective percentages are 25 percent, 50 percent, and 75 percent.

The requirements by classes, schools and colleges are:

<i>School or College</i>	<i>Required Number of Credit-Hours</i>			<i>Total to Graduate</i>
	<i>Sophomore</i>	<i>Junior</i>	<i>Senior</i>	
Arts and Sciences	23	53	83	120
Business and Economics				
Baccalaureate Programs	23	53	83	120
Two-Year Business	23	—	—	62
Education				
Music Education	26	60	94	137
Industrial Arts Technology	25	55	88	126
All Other Programs	23	53	83	120
Nursing	24	63	91	120

## PROBATION

A student may be placed on academic probation by the Dean of his/her School or College if the student is making unsatisfactory progress toward meeting graduation requirements. The student is liable to be suspended at the end of the following semester unless substantial progress is made. Since exact standards vary somewhat from college to college and from class to class, students are urged to discuss with advisers in the appropriate academic Dean's Office the record they should maintain to avoid probation or suspension.

A student may be removed from probation by earning satisfactory grades in Summer Session courses if the courses have been approved in advance by the adviser and the appropriate Dean.

## SUSPENSION

Students may be suspended from the University either by the University Committee on Academic Standing or by the University Disciplinary Committee. Academic suspension is automatic when a

student receives a semester average below 1.0. Other standards vary from college to college and from class to class. Students are urged to consult advisors to learn the standards that apply to them. For details about disciplinary suspension and dismissal, consult the "Disciplinary Code," published by the Educational Services Office.

## WITHDRAWAL FROM THE UNIVERSITY

The procedure for withdrawal from the University is to secure an official withdrawal slip from the Registrar's Office. The student will then be instructed to seek an exit interview with a member of the Educational Services' staff.

If a student withdraws from the University during the first five weeks of the semester, there will be no course grade recorded. If a student withdraws from the University during the second five weeks, the student's record will show only "W" for the course in which the student was enrolled. When a student withdraws from the University during the last five weeks of the semester,

the student will receive a grade designation to be determined by the instructor.

Withdrawn students, in good standing with the University, who wish to return to school at a future date, must submit an application to return to the Admissions Office before July 1 for the fall semester and before November 15 for the spring semester.

### **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 and the dean 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.

### **DOUBLE MAJORS**

When a student completes the basic requirements for graduation from a school or college 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 second 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 WITH 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 must be obtained from the Dean's Office. A change-of-major form must be filed with the Registrar's Office.

### **CHANGE OF COLLEGE OR SCHOOL**

Information on the procedure for change of College or School may be obtained from the Registrar's Office.

### **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 only at the regular fee. 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 Student Handbook or obtain a copy of the policy at the Office of the Registrar on either campus.

### **GRADUATION REQUIREMENTS**

A candidate for a 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 least six weeks prior to the expected date of graduation.

### **GRADUATION WITH DISTINCTION**

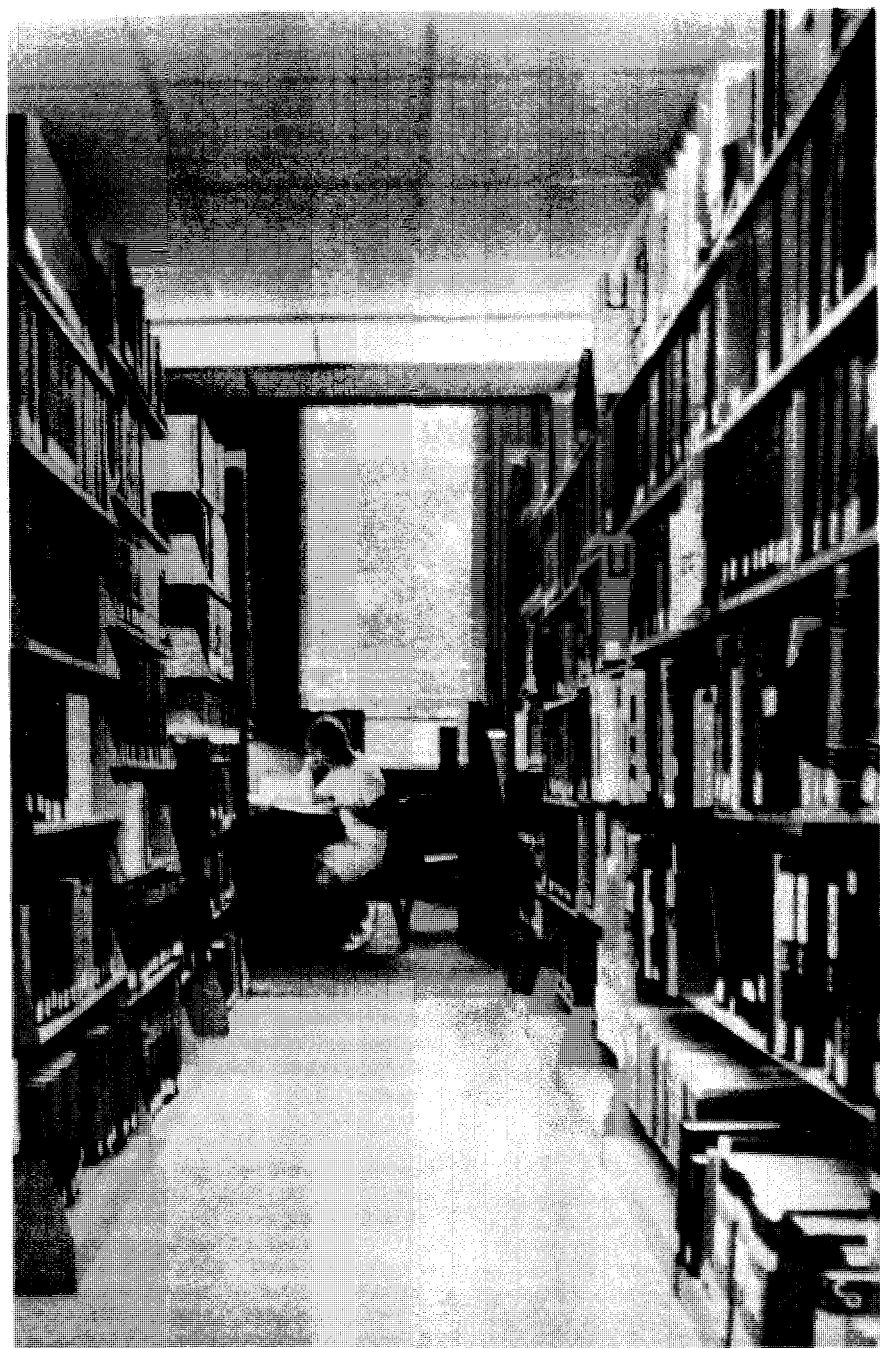
Graduating seniors are cited for graduation honors on the diploma and on the transcript. Students who have achieved a cumulative index of 3.50 or higher graduate summa cum laude; those with a cumulative index of 3.25 to 3.49 inclusive graduate magna cum laude; and those with a cumulative index of 3.00 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.

### **DEPARTMENTAL HONORS PROGRAM**

Students graduating in the University Departmental Honors Program will have the designation "with Honors in" the appropriate major.

Guidelines for graduation with departmental honors vary among University schools and colleges. Students should check with appropriate dean for details.



## COLLEGE OF ARTS AND SCIENCES

### DEAN

Konnilyn G. Feig  
113 Bonney Hall, Portland

### ASSOCIATE DEAN

Constance M. Carroll  
122 Bonney Hall, Portland

### ASSISTANT DEAN

Waldeck E. Mainville, Jr.  
115 Bailey Hall, Gorham

*The following policies and programs may change during the two years covered by this current catalog. Students seeking information about forthcoming changes should contact the office of the Dean of the College of Arts and Sciences.*

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, as a constantly developing unit of the University, provides a quality liberal education for students. Students in the College have the opportunity to specialize and increase their knowledge of a particular discipline or area of interest. A broad range of department and program options and alternative educational methods allows students to get the maximum benefit from their college experience. With good advising, experimentation and commitment, all CAS students have the opportunity to follow a quality program suited to their present needs and future aspirations.

In addition to meeting the needs of its students, the College of Arts and Sciences offers programs of study and service to students in all other schools of the University. Students enrolled in the College of Education, the School of Nursing, or the School of Business and Economics all must take some or most of their required and elective course work in various departments of the College of Arts and Sciences.

### DEPARTMENTAL ORGANIZATION OF THE COLLEGE OF ARTS AND SCIENCES

The College of Arts and Sciences is composed of the following departments, each of which is described in the following pages:

American Studies Department  
Art Department  
Biology Department  
Chemistry Department  
Communication Department  
Earth Sciences, Physics, and  
Engineering Department  
English Department  
Foreign Languages and Classics  
Department  
Geography-Anthropology Department  
History Department  
Mathematics and Computer Science  
Department  
Music Department  
Philosophy Department  
Political Science Department  
Psychology Department  
Social Welfare Department  
Sociology Department  
Theatre Department

Detail concerning the interdepartmental Criminal Justice Program is provided in this catalog in a subsection following the description of the courses offered by the Communication Department.

### BACHELOR OF ARTS DEGREE PROGRAMS

Programs of study leading to a Bachelor of Arts (B.A.) degree are available for students who meet the admission standards for the specific program, who successfully complete the program requirements, and who satisfy the General Education Requirements of the University. B.A. degree programs are available in the following major areas:

American Studies  
Applied Chemistry  
Art  
Biology  
Communication  
Criminal Justice

Earth Science/General  
 Earth Science/Geology  
 Economics  
 English  
 French  
 Geography-Anthropology  
 History  
 Mathematics  
 Music  
 Philosophy  
 Political Science  
 Psychology  
 Social Welfare  
 Sociology  
 Theatre

### **BACHELOR OF ARTS DEGREE PROGRAM IN CRIMINAL JUSTICE**

A Bachelor of Arts (B.A.) degree with a major in **Criminal Justice** may be earned through the Criminal Justice Program in the College of Arts and Sciences.

### **BACHELOR OF FINE ARTS DEGREE PROGRAM**

A Bachelor of Fine Arts (B.F.A.) degree with a major in **Art** may be earned through the Art Department in the College of Arts and Sciences.

### **ASSOCIATE OF ARTS DEGREE PROGRAM**

Students may opt for the A.A. in Liberal Arts, a two-year program in Liberal Arts disciplines, made available through the College of Arts and Sciences, the Continuing Education Division, and the York County Community College Services. Details of this program may be obtained from any of these three offices.

### **INTERDISCIPLINARY DEGREE OPTIONS**

Students in Arts and Sciences have a number of options to choose from in planning their academic program. In addition to the major programs listed above, it is also possible for students to earn a B.A. degree through two other programs: the **Self-Designed Major** and the **Liberal Studies Major**. These programs are described in the following pages.

## **ACADEMIC MAJORS PROVIDED BY THE COLLEGE OF ARTS AND SCIENCES FOR THE COLLEGE OF EDUCATION**

The College of Arts and Sciences as one of its services provides a number of programs which enable students in the College of Education to concentrate in various subject areas. The Major and Minor programs in CAS available to Education students are:

### **Art**

Art Education

### **Biology**

Biology Major (Secondary Education)

Biology Minor (Secondary Education)

(Certain biological sciences are also included in the Science Area Major and Minor for students of Education, as listed under Physical Sciences.)

### **Earth Sciences, Physics, and Engineering**

Science Area Major (Secondary Education) (Certain biological sciences are included in this program.)

Science Area Minor (Elementary or Kindergarten-Primary Education)

(Certain biological sciences included.)

### **English**

English Major and Minor (Secondary Education) English Major and Minor (Elementary or Kindergarten-Primary Education)

### **Foreign Languages**

French Major (Secondary Education)

### **Geography-Anthropology**

Social Science Area Major (Secondary Education) Social Science Area Major and Minor (Elementary or Kindergarten-Primary Education) Geography Minor (Elementary or Kindergarten-Primary Education)

### **History**

History Major and Minor (Secondary Education) History Major and Minor (Elementary or Kindergarten-Primary Education)

### **Mathematics**

Mathematics Major and Minor (Secondary Education) Mathematics Major and Minor (Elementary or Kindergarten-Primary Education)

### **Music**

Music Education

## **UNIVERSITY GENERAL EDUCATION REQUIREMENTS\***

All College of Arts and Sciences students must fulfill the **General Education Requirement** in order to graduate. This requirement consists of 30 credit hours selected from the following areas:

### **AREA 1: HUMANITIES**

6 credits from:

CLASSICS (CLS)  
COMPARATIVE LITERATURE (CPEN)  
ENGLISH (ENG)  
FRENCH (FRE)  
GERMAN (GMN)  
GREEK (GRK)  
LATIN (LAT)  
PHILOSOPHY (PLY)  
SPANISH (SPN)

### **AREA 2: FINE AND APPLIED ARTS**

6 credits from:

ART HIST./APPRECIATION (ARTH)  
ART STUDIO COURSES (ARTS)  
COMMUNICATION (COM)  
DANCE (DNCE)  
MUSIC (MUS)  
THEATRE (THE)

### **AREA 3: SCIENCE AND MATHEMATICS**

6 credits from:

ASTRONOMY (ASTR)  
BIOLOGY (BIO)  
CHEMISTRY (CHEM)  
EARTH SCIENCE (ESCI)  
GEOLOGY (GEOL)  
GENERAL SCIENCE (GSCI)  
METEOROLOGY (MET)  
MATHEMATICS (MS)  
OCEANOGRAPHY (OCN)  
PHYSICS (PHYS)  
PHYSICAL SCIENCE (PSCI)

### **AREA 4: SOCIAL SCIENCES**

6 credits from:

ANTHROPOLOGY (ANY)  
CRIMINAL JUSTICE (CJ)  
ECONOMICS (ECON)  
GEOGRAPHY (GEOG)  
HISTORY (HIST)  
POLITICAL SCIENCE (POL)  
PSYCHOLOGY (PSY)  
SOCIAL WELFARE (SWE)  
SOCIOLOGY (SOC)

### **AREA 5: GENERAL**

6 credits from:

ANY COURSES FROM THE ABOVE  
ACADEMIC GROUPINGS  
COLLEGE OF ARTS AND SCIENCES  
(CAS) COURSES

**\*\*PHYSICAL EDUCATION COURSES (PE) or RECREATION/LEISURE COURSES (RLS)**

## **PLANNING AN ACADEMIC PROGRAM IN CAS ADVISING**

Perhaps the most important component in planning an academic program in the College of Arts and Sciences is good advising. Students are encouraged and urged to stay in close contact with their academic advisers in order to choose or develop a program best suited to their needs and aspirations. CAS advisers can keep them posted about the latest developments in the College and University which may affect or interest them as well as the ever changing national picture. The adviser is the one resource a student always has for concerned evaluation, suggestions, and assistance in keeping an accurate record of accomplishments. Every student is assigned an adviser upon entering the College, although students always have the option of changing their adviser as interests grow and their academic program takes shape.

## **CHOOSING A MAJOR**

Choosing a major is one of the difficult decisions all students have to make during their tenure in CAS. Since this is an important decision, students are encouraged to experiment fully during their freshman and sophomore years in the many disciplines available in the College before making a final decision at the end of the sophomore or the beginning of the junior year. With the help of their academic advisers, student should arrive at a choice which is both realistic and enjoyable. Although it is always possible for students to change their major, the most careful attention prior to their choice is urged to prevent students from limiting their exploration too early. All students may follow a major "track" in any department at any



time. Fine Arts students, however (especially in Art and Music), usually must begin their serious program early because of portfolio and audition requirements. Students planning to major in a science are advised to contact a major adviser and begin the required course sequences as soon as possible.

### **REQUIREMENTS FOR DEGREE PROGRAMS**

Before students can qualify for a degree, they must fulfill three types of requirements which affect the total academic program: Departmental (or Program) requirements; College of Arts and Sciences requirements; and University requirements.

### **DEPARTMENTAL (or PROGRAM) REQUIREMENTS**

Departments and Programs have specific requirements which must be met by students majoring in them as candidates for a baccalaureate degree. Students should consult the descriptions of the departmental or program requirements for the major under the appropriate headings in this catalog. Students should also keep in close contact with major advisers to stay abreast of changes and new directions in the curriculum sequence. Education students must be sure to consult both the CAS departmental sequence and the sequence for Education majors in this section of the catalog.

### **COLLEGE REQUIREMENTS**

The College of Arts and Sciences requires that students successfully complete 120 credit hours and meet both departmental (or program) and University requirements in order to graduate with a baccalaureate degree. If, prior to the publication of the next catalog, the College adopts any additional requirements or changes the existing requirements, these will be announced and additional information may be obtained from the office of the Dean of Arts and Sciences.

\*Except for K-P or GE majors, department courses in the student's major area may not be applied toward fulfillment of the General Education Requirement. In addition, students in the School of Business

Administration, the School of Education, or the School of Nursing may be further restricted in course selections from one or more of the five areas because of the specific requirements of the program in which they are enrolled.

A student who has matriculated before September 1971 may continue the program under the requirements in force at the time of matriculation or the student may elect to complete the General Education Requirements under the provisions stated above.

**\*\*Physical Education is not a requirement for Arts and Sciences students, but may be elected under Area 5 of the General Education Requirements.**

### **CAS MINIMUM WRITING PROFICIENCY AND COMPOSITION REQUIREMENTS**

#### **Writing Proficiency Requirement**

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

1. By achieving a score above 35 on the Test of Standard Written English (TSWE)\*, which is a part of the College Board testing program.
2. By showing a record of success in writing courses already completed at the college level.
3. By achieving a score above the third decile in each of the Language Arts Skills tested by the Iowa Tests of Educational Development (ITED). (This test will be administered on request by the English Department; Fee: \$2.00.)

Students who do not have a minimum writing proficiency **must** take ENG 50, a non-credit remedial writing course (Proficiency Writing), until they can demonstrate minimum proficiency by either (1) passing an ITED test, as above, or (2) passing an equivalent test administered by the staff of ENG 50.

No student will be admitted to Junior class standing who has not demonstrated minimum writing proficiency.

### **Composition Requirement**

All students must take a three-credit course in college-level writing, either ENG 100 or ENG 101. This requirement will be waived, however, for the following students:

1. Those who score 50 or better on the Test of Standard Written English (TSWE)\*.
2. Those who score in the ninth decile in each of the Language Arts Skills as tested by the Iowa Tests of Educational Development (ITED).
3. Those who show a strong record of success in writing courses already completed at the college level, as determined by the English department.
4. Those who score above 540 in the C.L.E.P. English test, who will be given credit for having passed ENG 100.

\*Complete records of students with TSWE scores of 35 or 49 will be reviewed to determine proper placement of waiver.

### **CAS MAJORS, MINORS, AND PROGRAMS**

CAS Departments offer majors, minors, and concentrations in a number of different disciplines to allow students to follow the program which best suits their needs. In addition to those described under the following department headings, there are several other options that students may choose in planning their academic program: **Honors, Self-Designed Major, Liberal Studies Major, Independent Study Term.**

#### **HONORS**

Students with special interest in a subject and high achievement or potential may apply for the Honors Program in a department when they declare their major. Since these programs vary according to the course requirements of a given department, students may consult the department of their choice for guidelines, or they may obtain them from the office of the Dean of CAS.

#### **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 department major. The Self-Designed Major must be structured around an area as broad as a departmental major and must provide breadth and depth dimensions consistent with a College of Arts and Sciences Major. This 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 CAS.

#### **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 CAS.

#### **INDEPENDENT STUDY TERM**

The Independent Study Term is designed to be a productive and challenging experience for mature, creative students. Students who have identified an academic project or program which they feel would contribute significantly to their program may, with the approval of a faculty sponsor and the department involved, apply for a semester of independent study. Students should discuss this option with their academic adviser, since it may be a useful tool in many programs requiring serious projects, theses, or original work. General guidelines may be obtained from departments or the office of the Dean of CAS.

#### **COOPERATIVE EDUCATION OPPORTUNITIES**

Many departments in the College of Arts and Sciences work in cooperation with businesses, agencies and other programs to

provide practical experiences for students. Students may earn credit as well as have the opportunity of putting their classroom experience into useful practice. Students interested in cooperative education should contact the chairman of the department of their area of interest or the office of the Dean of CAS.

### CAS COURSES

Each semester the College of Arts and Sciences offers courses on a variety of topics and themes which are not sponsored by individual departments. These courses are listed as "CAS" courses in the schedules and special course description

sheets every semester. Further information on these courses may be obtained from the Office of the Dean of CAS.

### UMPG SYSTEM OF COURSE CODING

- 00-99 No degree credit
- 010-099 Associate Degree program
- 100-199 Introductory level
- 200-299 Intermediate level
- 300-399 Intermediate level
- 400-499 Senior level, others by permission
- 500-599 Graduate level
- 600-699 Professional graduate level as in the School of Law

### AMERICAN STUDIES

The Departments of History and English, in cooperation with other departments, offer

an interdisciplinary major leading to a Bachelor of Arts degree (B.A.) in American Studies.

### REQUIREMENTS

Students may apply for this program to the American Studies Board. Students majoring in American Studies must complete the following requirements:

Category	Credits
a. Category I: American Literature (to include English 342 and 343, "American Literature I and II")	12
b. Category II: American History (to include History 131-132, "U.S. History to 1877-U.S. History since 1877" or History 133-134, "American History I and II")	12
c. Category III: Humanities and Arts (American Philosophy, American Art, American Music, American Drama)	6
d. Category IV: Social Sciences (Political Science, Geography, Sociology, Economics)	6

- e. Senior American Studies Seminar 3  
(to be team-taught by one member  
of the English Department and one  
member of the History Department)
- f. Concentration: 6 additional credits 6  
in either Category I or Category II
- g. Comprehensive Examination. The  
examination is based upon the  
American Studies Reading List to be  
given majors upon their acceptance into  
the program. Students must pre-register  
for the examination (given in December  
and April). Satisfactory performance  
will consist of a grade of C or better on  
the examination.

The program description and complete guidelines may be obtained from the office of the Dean of the College of Arts and Sciences.



## ART

Chairman of the Art Department: Juris K. Ubans, Ground Floor, Robie Hall, Gorham.

Associate Professors Bearce, Franklin, Moore, Rakovan, Ubans (on leave Spring Semester, 1977); Assistant Professors Henry, Hewitt.

### 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 qualifies graduates to teach or supervise art in all grades of the public schools.

### DEPARTMENT OF ART

Each applicant should first follow the standard admission procedures of the University, and then submit to the Department of Art (Gorham Campus) a portfolio of original art work. This portfolio should number approximately 12 works, consisting of one self-portrait drawn from life, and a selection of work which indicates the applicant's current interests and abilities. Prints, drawings, paintings, posters, photographs, and films may be included, but 35mm slides or photographs of three-dimensional and other bulky work should be submitted rather than the work itself. The Department cannot accept responsibility for damage, 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 UMPG Admissions Office or the Department of Art.

Applicants and their parents are cordially invited to visit the University and become acquainted with our facilities when portfolios are returned.

Final notification of a decision will come from the Office of Admissions when the admission folder is completed. Students already enrolled in the University who wish to change their major to art must follow the departmental admission procedures con-

cerning submission of portfolio, as described above, and will be notified of acceptance by the Department of Art.

### 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 recommended by the Department of Art:

- ARTH 101 Introduction to Art
- ARTH 113 Film as Image and Idea
- ARTH 111 History of Art I
- ARTH 112 History of Art II
- ARTS 141 Design I (space permitting)
- ARTS 151 Drawing I (space permitting)

### GENERAL EDUCATION REQUIREMENTS FOR ART MAJORS

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.

All art majors must satisfy the General Education Requirement in Area 2 (Fine and Applied Arts) by acquiring six credits in courses outside the art program. Acceptable courses are coded COM, DNCE, MUS or THE.

### 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 credits)**

## **ELECTIVES\* (45 credits)**

\*No more than 60 credit hours with ART designation may be used to fulfill 120 credit-hour 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**

**(6 credits)**

ARTH 411 Philosophy of Art  
(may substitute PLY 220)

ARTH Elective

## **GENERAL EDUCATION**

**REQUIREMENT (30 credits)**

## **ELECTIVES† (21 credits)**

†A concentration of 12 credits in Painting, Printmaking, Ceramics, Drawing or Other (specified by the department) area is required.

### **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**

**(6 credits)**

ARTH 411 Philosophy of Art  
(may substitute PLY 220)

ARTH Elective

## **STUDIO ART REQUIREMENT**

**(27 credits)**

ARTS 232 Ceramics I

ARTS 261 Painting I

ARTS 271 Photography I

ARTS Printmaking

ARTS 291 Sculpture I

ARTS Elective

ARTS Elective

ARTS Elective

ARTS Elective

## **PROFESSIONAL EDUCATION**

**REQUIREMENT (24 credits)**

ARTE 221 Practicum in Art Education

ARTE 321 Principles and Procedures  
in Art Education

EDU 350 Modern Philosophies  
of Education

EDPY 333 Human Growth and  
Development

EDU 324 Student Teaching  
(6-cr. course)

EDU 324 Student Teaching  
(6-cr. course)

## **GENERAL EDUCATION**

**REQUIREMENT (30 credits)**

## **ELECTIVES (15 credits)**

## **COURSES IN ART**

### **ART HISTORY**

#### **ARTH 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.

#### **ARTH 113 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. 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. Preference given to those matriculated 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 to those matriculated in the Department of Art or those with permission of the instructor.

Cr 3.

**ARTH 211 History of Architecture and the Urban Environment**

A study of the European-American tradition of architectural design with emphasis upon the basic styles which influence American architecture and their utilization in urban America. Consideration of aesthetic and social interplay of architectural design throughout history, especially as it is manifest in urban design. Prerequisite: ARTH 112.

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 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 17th & 18th 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 216 19th & 20th Century Art**

This course will survey the many "isms" of the 19th and 20th century in art and architecture. The key figures in these movements (e.g. Romanticism, Classicism, Cubism, Expressionism), their major works and some of the underlying philosophies and circumstances motivating these movements will be discussed. Prerequisite: ARTH 112.

Cr 3.

**ARTH 312 History and Appreciation of the Graphics Arts**

An explanation of the graphic techniques: woodcut, engraving, etching, aquatint, lithography, etc. A study of the graphic arts as they have evolved throughout the history of art with emphasis upon the important graphic artists of Europe, America, and the Orient. Prerequisite: ARTH 112.

Cr 3.

**ARTH 313 Renaissance Art - Italian**

This course will deal with painting and sculpture in the lands south of the Alps (primarily Italy). The student will investigate questions regarding chronology, attributions, and iconography associated with the various artists of the Italian Renaissance. Prerequisite: ARTH 214.

Cr 3.

**ARTH 314 Renaissance Art - Northern**

This course deals with painting and sculpture in the lands north of the Alps. The student will explore the problems with chronology, iconography, and style, associated with each individual artist of the Northern Renaissance. Prerequisite: ARTH 214.

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 1780-1880. 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**

Contemporary Art: 1950 to ?. An examination and discussion of developments in the visual arts since 1950. Prerequisite: ARTH 112.

Cr 3.

**ARTH 379 Topics in Film**

A selection of courses, dealing with the film, but varying in content from semester

to semester. Each current course will have a course description on film in the Department of Art. Courses may concern national industries (*The American Cinema*, *The Russian Film*, *The German Film*, etc.); directors (*Renoir*, *Brunel*, *Dreyer*, etc.); genre (*The Documentary*, *The Gangster Film*, *The Western*, etc.); or similar topics. Prerequisite: ARTH 113. 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 COURSES**

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

A coordinated series of experiments with basic design problems directed toward developing a sense of personal integrity, an awareness of the design potential, and the confidence, imagination, and skill needed to realize these potentials. Problems in color and light, systems of space, and visual design of graphic symbols stressing the presentation and use of basic tools. Preference given to those matriculated in Department of Art. Cr 3.

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

Basic problems in two-dimensional design with relation to painting, sculpture, graphic arts, and architecture. Problems deal with elements of composition, color, space, time, movement, symbolic representation, and communication. Prerequisite: ARTS 141. Cr 3.

#### **ARTS 143 Design III**

Problems in three-dimensional design utilizing the systemic study of order and space. Construction and analysis of basic forms in various materials (paper, wood,

clay, plaster, and plastics). Prerequisite: ARTS 142. Cr 3.

#### **ARTS 151 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. Preference given to Art or Art Education majors or those with permission of instructor. Cr 3.

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

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

#### **ARTS 153 Drawing III**

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

#### **ARTS 231 Materials and Techniques**

An introduction to materials, methods, and techniques for the professional artist-craftsman. Examination, comparison, and testing of materials, both traditional and experimental. Prerequisite: ARTS 143 and 153 or permission. Cr 3.

#### **ARTS 232 Ceramics I**

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

#### **ARTS 234 Weaving I**

An introduction to basic fabrics including a study of terms, tools, and procedures used in weaving. Problems may include tie dye, batik, mocrene, stenciling, and black print on various fibers. Prerequisite: Art core courses. Cr 3.

#### **ARTS 241 Design IV**

Investigation of advanced design problems with emphasis on presentation. Prerequisite: ARTS 143. Cr 3.

#### **ARTS 251 Drawing IV**

Continued drawing with emphasis on independent direction. Prerequisite: ARTS 153. Cr 3.

#### **ARTS 261 Painting I**

An introduction to pigments, grounds, and methods of painting in varying media. Emphasis on technical and formal prob-



lems. Prerequisite: Art core courses. Cr 3.

### **ARTS 271 Photography I**

Photography as a creative medium. Provision of basic skills in the use of the camera and laboratory 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—Relief**

Introduction to Relief Printmaking: Woodcut, Linoleum Block, Wood Engraving. Prerequisite: Art core courses. Cr 3.

### **ARTS 282 Printmaking—Stencil**

Introduction to silk screen printing, including photo-mechanical reproduction. Prerequisite: Art core courses. Cr 3.

### **ARTS 283 Printmaking Intaglio I**

Introduction to Intaglio printmaking, using etching, engraving, aquatint, mezzotint, and drypoint. Prerequisite: Art core courses. Cr 3.

### **ARTS 284 Printmaking Lithography I**

Introduction to the process of lithographic printing from stones. Prerequisite: Art core courses. Cr 3.

### **ARTS 291 Sculpture I**

Clay modeling with emphasis on structure and anatomy of figure, and their relationship to sculptural form, including the building of an armature and a finished plaster cast. Prerequisite: Art core courses. Cr 3.

### **ARTS 332 Ceramics II**

Application of design principles in production of ceramicware with a concentration on advanced problems in wheel-thrown forms and hand-building sculptures. Prerequisite: ARTS 232. Cr 3.

### **ARTS 334 Weaving II**

Advanced work on hand and foot treadle looms; how to design and produce pattern weaves; the practical application of various fibers used in weaving. Prerequisite: ARTS 234. Cr 3.

### **ARTS 351 Drawing V**

Making personal and complete drawings and series of drawings. Emphasis on individual concepts and personal expression. Prerequisite: ARTS 251. Cr 3.

### **ARTS 361 Painting II**

Studies, principally from tangible situations, in the organization of pictorial ideas, the derivation of forms, and the control of space. Use of various painting media. Prerequisite: ARTS 261. Cr 3.

### **ARTS 362 Painting III**

Exploration of the concepts and techniques of painting with emphasis on individual expression. Prerequisite: ARTS 361. Cr 3.

### **ARTS 363 Watercolor**

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

### **ARTS 371 Photography II**

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

### **ARTS 383 Printmaking Intaglio II**

Continuation of Intaglio I with emphasis on viscosity techniques. Prerequisite: ARTS 283. Cr 3.

### **ARTS 384 Printmaking Lithography II**

Continuation of Lithography I with emphasis on color printing. Prerequisite: ARTS 284. Cr 3.

### **ARTS 391 Sculpture II**

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

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.

**ARTS 432 Ceramics III**

Investigation and realization of Advanced Ceramics projects with an emphasis on personal development and professional attitudes. Prerequisite: ARTS 332. Cr 3.

**ARTS 461 Painting IV**

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

**ARTS 462 Painting V**

Continuation of Painting IV. Investigation of advanced painting problems with emphasis on individual expression. Prerequisite: ARTS 461. Cr 3.

## ART EDUCATION

**ARTE 121 Introduction to Art Education**

A study of growth and development in the creative abilities of children; how to utilize art projects to foster initiative, imagination, cooperation, and appreciation in the classroom. Prerequisite: Permission of instructor; not for students accepted as Art Education majors. Cr 3.

**ARTE 122 Handcrafts**

An introduction to the general handcrafts, including macrame; leatherwork; batik; tie-dye; decoupage; stitcher; candlemaking;

rugmaking; mosaics; string art; textile, metal, and wood painting; refinishing furniture; glass etching; paper mache; sandcasting, etc. Cr 3.

**ARTE 221 Practicum in Art Education**

Designed to give the art major student an early first-hand experience with children and the professional aspects of teaching. The student will work with children in elementary and secondary schools in the area. Prerequisite: Art core courses.

**ARTE 321 Principles and Procedures in Art Education**

This course endeavors to help the prospective art teacher arrive at a workable philosophy of art education through readings, discussions, and projects in basic instructional techniques for the elementary and secondary grades. Prerequisite: ARTE 221. Cr 3.

**ARTE 428 Independent Study in Art Education**

An opportunity for the student who has demonstrated competence in a specific area of study to work independently with scheduled tutoring for a faculty member of the student's choice. Prerequisite: Permission of instructor and Art Department chairman. Cr 1 to 6.



## BIOLOGY

Chairman of Biology Department: P. K. Holmes, 412 Science Building, Portland.

Professor Najarian; Associate Professors Greenwood, Holmes, Kern, Mazurkiewicz, Riciputi, Schwinck (on leave Fall Semester, 1976); Assistant Professors Dorsey, Gainey, Hartman.

### PROGRAMS

A four-year program is offered in biological sciences. The program is designed for students planning to enter graduate schools, or professional school programs in medicine, dentistry, veterinary medicine, and allied health fields. For students

enrolled prior to September 1976, a Biological Science Major in Secondary Education is also offered.

The required Biology courses expose the student to an examination of life at several levels of complexity, from the molecular to the social; 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.

During their first semester, all prospective Biology majors will be assigned an appointment with Professor Najarian, our advisor to freshmen.

### REQUIREMENTS FOR A BIOLOGY MAJOR IN ARTS AND SCIENCES

(These requirements are also applicable to students enrolled prior to September 1976 as Biological Science Majors in Secondary Education.)

		Credit hours
*MS 152	Calculus A	4
PHYS 121 and 122	General Physics (5 credits each semester) to be taken as a two-semester sequence	10
CHEM 113	Qualitative Principles of Chemistry	3
CHEM 114	Qualitative Laboratory Techniques	2
CHEM 115	Quantitative Principles of Chemistry	3
CHEM 116	Introduction to Analytical Laboratory Techniques	2
CHEM 251 and 253	Organic Chemistry I and II	6
CHEM 252 and 254	Organic Chemistry Laboratory I and II	5
CHEM 231	Fundamentals of Analytical Chemistry	2
CHEM 232	Analytical Chemistry Laboratory	4
Foreign Language through Intermediate Level (Arts and Sciences only), or a passing grade in French 112 or German 112. Credits to be earned depend upon the language proficiency of the student. Challenge examinations are available.		0-6
Physical Education		1
BIO 101 and 102	Biological Principles (3 credits) plus Biological Experiences (1 credit)	4
BIO 103 and 104	Biological Diversity (3 credits) plus Survey of Animals and Plants (1 credit)	4
BIO 201	Principles of Genetics	3
BIO 203 and 204 or 206	Developmental Biology (2 credits) plus Comparative Vertebrate Embryology or Anatomy (2 credits)	5
BIO 311 and 312	Microbiology (3 credits) plus Microbiological Laboratory (2 credits)	5
BIO 331 and either 332 or 342	Ecological Principles (3 credits) plus Marine Field Ecology (2 credits) or Field Limnology (2 credits)	5
BIO 401 and 402	General Physiology (2 credits) plus General Physiology Laboratory (2 credits)	4
†BIO 421	Biology Seminar I	1
†BIO 431	Biology Seminar II	1

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

†Optional, but strongly recommended, for seniors graduating after 1976.

**NOTE:** Senior Biology Majors must take the Graduate Record Examination in Biology. Students interested in preparation for Medical Technology, or Medical or Dental Schools, should take the same chemistry courses as required for a major in Biology. All students are reminded that, in addition to departmental requirements, they must also meet the requirements of the College of Arts and Sciences, as well as the University's General Education Requirements.

Arts and Sciences Biology majors are required to have a reading knowledge of a foreign language. Advanced Placement and Credit by Examination will be decided on an individual basis.



### **COURSES IN BIOLOGICAL SCIENCES**

#### **BIO 101 Biological Principles**

A study of the structure and function of cells, and a consideration of multi-cellular organisms, in terms of heredity, evolution, and ecology. Cr 3.

#### **BIO 102 Biological Experiences**

Laboratory studies of the structure, function, and reproduction of cells and the examination of representative animals and plants. Prerequisite: BIO 101, or concurrent with BIO 101. Cr 1.

#### **BIO 103 Biological Diversity**

Studies of the structure, function, and behavior of animals and plants. Prerequisite: BIO 101. Cr 3.

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

Laboratory examination of the structure and function of representative animals and plants. Prerequisite: BIO 103, or concurrent with BIO 103. Cr 1.

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

The structure and function of the human body. Prerequisite: BIO 101. Cr 3.

**BIO 112 Practical Human Anatomy and Physiology**

Laboratory studies of the structures and functions of the human body, including microscopy and physiological experiments. Prerequisite: BIO 102 or equivalent and BIO 111 or concurrent with BIO 111. Cr 1.

**BIO 175 Animal Reproduction**

A comparative analysis of both asexual and sexual methods of reproduction, this course places in perspective the variety of reproductive styles and behavior of this prime property of life. Prerequisite: BIO 101, or permission of instructor. 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: 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: BIO 101. Cr 3.

**BIO 202 Experimental Genetics**

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

**BIO 203 Developmental Biology**

A study of the embryology and anatomy of several organisms, including man, and an analysis of the mechanisms which influence development. Prerequisites: BIO 101 and 103. Cr 3.

**BIO 204 Comparative Vertebrate Embryology**

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

**BIO 205 Evolution**

A study of the processes and evidences of organic evolution. Cr 3.

**BIO 206 Comparative Vertebrate Anatomy**

A comparison of the anatomy of vertebrates by the dissection of adults. Prerequisites: BIO 104, BIO 203 or concurrent with BIO 203. Cr 3.

**BIO 209 Vertebrate Zoology**

The form, structure, and life processes of the major groups of vertebrates are considered in respect to the animal's adaptation to its environment. Prerequisite: BIO 103. Cr 3.

**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, 1 year chemistry. Cr 3.

**BIO 242 Plant Physiology Laboratory**

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

**BIO 251 History of Biology**

A chronological survey of developments in biological investigations from earliest records to the present day. Emphasis will be placed on the methods of scientific discovery and the relationship between past milestones in biological investigations and modern understanding. Prerequisite: 9 credit hours in biology. Cr 3.

**BIO 281 Human Microbiology**

Fundamentals of microbiology with emphasis on infectious diseases of people, including bacteria, rickettsia, fungi, viruses, protozoa and helminths. Prerequisites: BIO 101, and one year of college chemistry. Cr 3.

**BIO 282 Human Microbiology Laboratory**

Laboratory techniques in the cultivation, identification and control of microorganisms. Prerequisites: BIO 101, BIO 102, CHEM 104, BIO 281 or concurrent with BIO 281. 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: BIO 101, or BIO 103. Cr 2.

**BIO 311 Microbiology**

A consideration of protozoa, fungi, bacteria and viruses of biological importance. Prerequisites: BIO 101, CHEM 115, and CHEM 132. Cr 3.

**BIO 312 Microbiological Laboratory**

The laboratory isolation and examination of micro-organisms by various techniques. Prerequisite: BIO 311, or concurrent with BIO 311. Cr 2.

**BIO 321 Histology**

A laboratory course which studies the microscopic anatomy of animal tissues and methods of preparing biological material. Prerequisite: BIO 101. Cr 2.

**BIO 331 Ecological Principles**

The interrelationships of living organisms and their environments, including man's role as a modifier of ecosystems. Prerequisite: BIO 101. Cr 3.

**BIO 332 Marine Field Ecology**

Laboratory and field studies which demonstrate the basic concepts of ecology. (Numerous field trips.) Prerequisite: BIO 331, or concurrent with BIO 331. Cr 2.

**BIO 342 Field Limnology**

Laboratory and field methods of investigating the ecological attributes and significance of inland waters. Prerequisite: BIO 331, or concurrent with BIO 331. Cr 2.

**BIO 351 Invertebrate Zoology**

The morphology, physiology, and phylogenetic relationships of non-backboned animals. Prerequisite: 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 men. Prerequisite: 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: BIO 103-104, one year of college chemistry. 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. Cr 2.

**BIO 381 Ichthyology**

The structure, origin, evolution, natural history, classification, zoogeography, and economic importance of fishes, with particular emphasis on species found in the northeastern United States. Prerequisites: BIO 103 and BIO 104. Cr 2.

**BIO 382 Field Ichthyology**

Laboratory methods and techniques of collecting and identifying fishes. Extensive field-collecting at various habitats. Prerequisite: BIO 381, or concurrent with BIO 381. Cr 2.

**BIO 401 General Physiology**

A study of physiological processes and their regulation in single-cell and multicellular organisms. Prerequisites: BIO 101, CHEM 253, and CHEM 254. Cr 2.

**BIO 402 General Physiology Lab**

Laboratory examination of physiological mechanisms of single-cell and multicellular organisms. Concurrent with BIO 401. Cr 2.

**BIO 421 Biology Seminar I**

Weekly oral reports and discussions by students and staff, on biological topics of current interest. Prerequisite: Biology seniors. Cr 1.

**BIO 431 Biology Seminar II**

A continuation of BIO 421. Prerequisite: Biology seniors. Cr 1.

**BIO 441 Problems in Biology**

Independent library or laboratory studies on a special topic, as mutually arranged by instructor and student. Prerequisite: by arrangement. Credit arranged.



## CHEMISTRY

Chairman of Chemistry Department: T. W. Sottery, 350 Science Building, Portland.

Professors Smith, Sottery, M. Whitten;  
Assistant Professor Provencher.

### PROGRAMS

The field of chemistry is concerned with the structure of matter and its transformation. 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 a practical 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 below.) The fourth year in the B.S. program will consist mainly 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 experiment and theory, rather than just theory, as is usual for those programs whose only immediate interest is the preparation of students for graduate study. 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. Students 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 nonchemistry courses; and a GPA of 3.0 in required chemistry courses. Applied Chemistry majors who are candidates for the B.S. degree are required to complete the following courses:

CHEM 113 & 114, 115 (or 215) & 116,  
231 & 232, 251 & 252, 253 & 254  
(or 255 & 256), 351 & 352 (or 321  
& 322) (or 361 & 362), 371 & 372,  
\*400.

CS 160  
ENG 100 (or 120), 210  
GEE 101, 102  
MS 152, 153  
PHYS 121, 122

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

NOTE: Since some of the courses which are required for the Applied Chemistry major program had not been processed by the CAS Curriculum Committee at the time this catalog went to press, all interested parties 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.

For one who has initiative and imagination but also patience, caution, and meticulous accuracy, a vast new realm governed by laws as yet undiscovered waits to be explored. Research is a challenging field and laboratories devoted to it are found throughout the country, in universities, in private or public research institutes or foundations and in 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 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).



## PERSONAL QUALIFICATIONS

A chemist must be objective and capable of self-discipline in accepting results of experiments with complete honesty of observation, thought, and judgment. However, your interest, dedication, and enthusiasm in pursuing chemistry for its own sake are required if you are to do well in your courses and succeed in your vocation.

## WHAT DO CHEMISTS STUDY?

What is produced when two substances are brought into contact in a reaction vessel? What forces hold the invisible atoms together? What are the shapes of the molecules of reactants and products? Is shape important? Is energy released or consumed during the reaction? How much?

These are a few of the kinds of questions asked by chemists. The methods for obtaining answers to these questions and some of the answers are dealt with in the chemistry courses which prepare a student for a career in chemistry. Many of the questions have not yet been adequately answered. Therein lies part of the excitement of chemistry. The subject, just like all branches of science, is open-ended and leaves scope for discovery, curiosity, and imagination.

## SCOPE

It is apparent from the diversity of questions that chemists ask that there are many aspects to the subject—synthesis, analysis, energetics, rate of reaction, mechanism, structure, instrumentation, theory-application. Because it is not possible for a person to be thoroughly knowledgeable in all branches of chemistry, it is convenient (though artificial) to divide chemistry along the following lines.

## ANALYTICAL

In all branches of science and technology it is essential to know the amounts of each element in the sample. The responsibilities of the Analytical Chemist include devising methods of analysis and developing automated procedures.

## INORGANIC

Inorganic materials have skyrocketed into industrial importance with the development of solid state physics (such as for transistors

and similar electronic devices) and space research. Inorganic Chemists observe chemical properties of elements and compounds, relate these properties to sizes, shapes, and structures of molecules and to forces holding them together, and synthesize compounds with desired properties on the basis of this knowledge.

## ORGANIC

New organic substances—synthetic rubbers, plastics, textiles, drugs, hormones, dyes, insecticides, etc.—have appeared in every home, community, and industry. Thousands of new compounds are invented by Organic Chemists every year, and the properties of these compounds are studied.

## BIOCHEMISTRY

Biochemists strive for a greater understanding of the chemical processes occurring in humans, animals, and plants. Their activities include preparing and testing drugs and hormones, investigating the chemical basis of mental and physical illness, and studying the role of substances such as enzymes, DNA, RNA, and chlorophyll in life processes.

## PHYSICAL

Physical Chemists like to discover mathematical equations to describe quantitatively how substances behave in different situations. For example, the behavior of electrons which bind atoms together or the conductance of electricity by ions in solution can be explored both experimentally and theoretically. Spectroscopy, thermodynamics, catalysis and high-speed reactions are but some of their interests.

Today more than ever before the traditional divisions (as enumerated above) are less distinct and the interdisciplinary areas of science have become very exciting. The molecular basis for life involves chemistry, biology, and physics. Nuclear chemistry and physics, geo-chemistry, the physics and chemistry of solids and the mathematical treatment of the forces that hold atoms together are areas where it is clearly difficult to distinguish between different branches of science and mathematics.

### C.A.I. Facility

Using the statewide university computing system, the Chemistry discipline has implemented an extensive facility of Computer Assisted Instruction modules for providing remedial assistance to students in freshman chemistry courses. These C.A.I. modules provide individualized and self-paced tutorial, drill and practice assistance to any student who wishes it. Interactive typewriter-like computer terminals located

on both the Portland and Gorham campuses provide ready access to the computing facility; a knowledge of typing is not necessary, since most student responses consist of only a few letters and/or numbers. Further information, including a C.A.I. User's Guide, is available from any CAPS (Computing and Data Processing Services) office or from Dr. Alan G. Smith of the Chemistry faculty.

### SAMPLE SCHEDULE

#### 1. For a Bachelor of Science degree in Applied Chemistry

##### FALL

##### SPRING

##### FRESHMAN YEAR

CHEM 113, 114 (Qual. Principles I)	5
PHYS 121 (General Physics) (G)	5
*MS 152 (Calculus A)	4
CS 160 (Intro. Computer Programming)	3
	<u>17</u>

CHEM 115, 116 (Qual. Principles II)	5
PHYS 122 (General Physics) (G)	5
ENG 100 or 120 (G)	3
ELECTIVE	3
	<u>16</u>

##### SOPHOMORE YEAR

CHEM 251, 252 (Organic Chem. I)	5.5
CHEM 231, 232 (Analytical Chem.)	6
GEE 101 (Engineering Design I)	2
ELECTIVE	2-3
	<u>15.5-16.5</u>

CHEM 215	3
CHEM 253, 254 (Organic Chem. II)	
OR 255, 256 (Structural Chem.)	5.5
MS 153 (Calculus B)	4
GEE 102 (Engineering Design II)	2
ELECTIVES	0-2
	<u>14.5-16.5</u>

##### JUNIOR YEAR

CHEM 371, 372 (Physical Chemistry)	5.5
ELECTIVES	9-10
	<u>14.5-15.5</u>

CHEM 351, 352 (Reaction Mechanisms)	
OR 321, 322 (Inorg. Chemistry)	5.5
OR 361, 362 (Biochemistry)	10
	<u>14.5-15.5</u>

##### SENIOR YEAR

INDEPENDENT STUDY (one or two semesters)	15
ELECTIVES	10-12
	<u>25-27</u>

#### MINIMUM TOTAL HOURS FOR GRADUATION 120

NOTE: Elective courses must include ENG 210, Expository Writing, 3 credits (G), which is offered in the spring semester of even-numbered years.

\*MS 152 is a pre- or corequisite for PHYS 121, and for CHEM 215. 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

## SAMPLE SCHEDULE

### 2. For a Bachelor of Arts degree in Applied Chemistry

FALL		SPRING	
<b>FRESHMAN YEAR</b>			
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 160 (Intro. Computer Programming)	3	GEE 102 (Engineering Design II)	2
ENG 100 or 120 (G)	3	ELECTIVES	4-5
ELECTIVE	<u>3</u>		
	16		<u>15-16</u>
<b>SOPHOMORE YEAR</b>			
CHEM 251, 252 (Organic Chem. I)	5.5	CHEM 215 (Quant. Principles)	3
		CHEM 253, 254 (Org. Chem. II)	
PHYS 121 (General Physics) (G)	5	OR 255, 256 (Structural Chem.)	5.5
CHEM 231, 232 (Analytical Chem.)	5	PHYS 122 (General Physics) (G)	5
	<u>15.5</u>	ELECTIVES	<u>3</u>
			16.5
<b>JUNIOR YEAR</b>			
MS 153 (Calculus B)	5	†CHEM 351, 352 (Reaction Mechanisms)	
†CHEM 371, 372 (Physical Chem.)	5.5	OR 321, 322 (Inorganic Chem.)	
ELECTIVES	5-6	OR 361, 362 (Biochemistry)	5.5
	<u>15.5-16.5</u>	ELECTIVES	<u>10-11</u>
			15.5-16.5
<b>SENIOR YEAR</b>			
ELECTIVES	15-16	ELECTIVES	15-16

### MINIMUM TOTAL HOURS FOR GRADUATION 120

NOTE: Elective courses must include ENG 210, Expository Writing, 3 credits (G) which is offered in the spring semester of even-numbered years.

\*MS 152 is a pre- or corequisite for PHYS 121 and CHEM 215. 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

## COURSES IN CHEMISTRY

### CHEM 010 Prerequisites for College

#### Chemistry

This is a remedial, non-credit course, designed to aid students who do not have an adequate background for CHEM 113 because they have never had high school chemistry. This course will provide an introduction to: definitions of terms and empirical and molecular formulas, chemical equations, gases and kinetic theory, atomic

structure, bonding, oxidation-state and rules of nomenclature. In addition, a portion of the course will be devoted to a review of the basic mathematical techniques needed for freshman chemistry. Since CHEM 113 is offered both Fall and Spring Semesters, a student who completes CHEM 010 in the Fall Semester would be able to start freshman chemistry work the

following Spring Semester. This course has no prerequisites and carries no college credit. Offered each Fall Semester. Cr 0.

### **CHEM 101 Chemistry for Health Sciences**

Provencher or Smith

A presentation of those general topics in chemistry which are pertinent to students in health-related areas. Included are 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. Two lectures and one recitation per week (usually concurrent with CHEM 102). Offered each fall semester. Not appropriate for applied chemistry or biology majors. Cr 3.

### **CHEM 102 Introduction to Laboratory Measurement**

Wigglesworth

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 fall semester. Corequisite: CHEM 101. Laboratory fee: \$5.00. Not appropriate for applied chemistry or biology majors. Cr 1.

### **CHEM 103 Introduction to Organic and Biochemistry**

Provencher or Smith

Stress will be placed upon those aspects of the subject matter which are of special importance for students of the health sciences. Topics to be covered include: 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. Two lectures and one recitation period per week (usually concurrent with CHEM 104). Offered each spring semester. Prerequisite: CHEM 101. Not appropriate for applied chemistry or biology majors. Cr 3.

### **CHEM 104 Introductory Organic and Biochemistry Laboratory**

Wigglesworth

Students will perform experiments intended to illustrate those aspects of organic chemistry of importance to living systems, as well as elementary principles of biochemistry. Topics to be included comprise the 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 each spring semester. Corequisite: CHEM 103. Laboratory fee: \$5.00. Not appropriate for applied chemistry or biology majors. Cr 1.

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

Sottery or Whitten

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

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

Whitten or Wigglesworth

A study in the laboratory of experiments specifically designed to illustrate the principles which are presented in CHEM 113 lectures. One recitation and two laboratory hours per week. Corequisite: CHEM 113. Laboratory fee: \$5.00. Offered each semester. Cr 2.

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

Sottery or Whitten

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\*. Offered each semester. Prerequisite: grade of C or better in CHEM 113.

\*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**

Whitten or Wigglesworth

A study in the laboratory of experiments designed 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. Laboratory fee: \$5.00. Offered each semester.

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

Whitten

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. Offered at least one semester each year. Cr 3.

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

Provencher or Sottery

A quantitative presentation of the 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 should be elected by all 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. Offered each spring semester.

\*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**

Provencher

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**

Provencher

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**

Smith or Sottery

An intensive treatment of the subject within the framework of the headings: 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). One recitation and two lecture hours 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**

Smith or Sottery

Experiments will be performed to illustrate such techniques as: thin-layer, column, and gas chromatography; distillation; melting and synthesis; identification and characterization of organic compounds; kinetic and

thermodynamic control of reaction rates. One recitation and three laboratory hours per week. Offered each fall semester. Prerequisite: a grade of C or better in CHEM 116. Pre- or corequisite: CHEM 251. Laboratory fee: \$10.00. Cr 2.5.

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

Smith or Sottery

A continuation of CHEM 251, but with a more extensive (and intensive) investigation of the principal categories of organic reactions. Extensive problem-solving in such areas as structure determination, spectroscopy, and stereochemistry. The structures and fundamental chemical reactions of lipids, carbohydrates, proteins and nucleic acids will be presented. Three lectures per week. Offered each spring semester. Prerequisite: a grade of C or better in CHEM 251. Cr 3.

### **CHEM 254 Organic Chemistry**

#### **Laboratory II**

Smith or Sottery

Experiments will be performed to demonstrate some chemical properties of representative substances from the classes described in CHEM 253, which is a corequisite. Among the techniques demonstrated by experiment will be adsorption chromatography; gas chromatography; ultraviolet/visible and infrared spectrophotometry; NMR spectroscopy; polarimetry, and determination of specific rate constants by various methods. One hour of recitation and three lab hours per week. Prerequisite: a grade of C or better in CHEM 252. Pre- or corequisite: CHEM 253. Offered each spring semester. Laboratory fee: \$10.00. Cr 2.5.

### **CHEM 255 Structural Chemistry**

Provencher and Smith

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. Offered each spring semester. Cr 4.

### **CHEM 256 Structural Chemistry**

#### **Laboratory**

Provencher and Smith

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, ultraviolet 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: Chemistry 255. Offered each spring semester. Lab fee: \$10.00. Cr 2.5.

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

#### **Chemistry**

Provencher

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**

Provencher

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: Chemistry 321. Not offered every year. Lab fee: \$10.00. Cr 2.5.

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

Provencher or Sottery

This course is designed to introduce 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. (B.A. candidates may postpone until the senior year). 3 recitations

per week. Prerequisites: A grade of C or better in CHEM 215, CHEM 231 and MS 153. Offered each fall semester. Cr 3.

### **CHEM 372 Physical Chemistry**

#### **Laboratory**

Provencher

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: A C grade or better in CHEM 232. Prerequisite or corequisite: CHEM 371. Lab fee: \$10.00. Offered each fall semester. 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 Sciences**

Whitten

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. The emphasis is on the physical sciences. Prerequisite: Two years (minimum of 12 credit hours) of college science. Offered spring semester only. Cr 3.

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

Sottery

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**

Whitten

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 interrelationships 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. Usually offered in spring semester only. Cr 3.

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

Sottery

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 531 Instrumentation in General Chemistry**

Provencher

This course will deal with the design, construction, and operation of instruments useful and pertinent to general chemistry laboratories: fluorescence, absorption spectroscopy, gas chromatography, stopped-flow kinetics, strain gauge manometry and other techniques which can be demonstrated with relatively inexpensive and available components. Three lecture hours per week. Offered during Summer Session only. Cr 3.

## COMMUNICATION

Chairman of Communication Department:  
Russell Kivatsky, 120 Bedford St., Portland.

Professors Hansen, Miller; Associate Professor Pic'l; Assistant Professor Kivatsky.

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, 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. At this time, 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.

All Communication majors will examine the different levels of communication analysis, but each will be expected to specialize in one area to successfully complete the degree program. The area of expertise should be chosen from one of the eight divisions of the International Communication Association. The divisions are as follows:

### INTERNATIONAL COMMUNICATION ASSOCIATION DIVISIONS

- I Information Systems
- II Interpersonal Communication
- III Mass Communication
- IV Organizational Communication
- V Intercultural Communication
- VI Political Communication
- VII Instructional Communication
- VIII Health Communication

Specialization in one of the divisions will prepare Communication majors for such fields as teaching, government service, law, mass media, industrial management, human relations and organizational administration.

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 be required to complete all of the following courses:

- COM 102 Introduction to Communication
- COM 171 Interpersonal Communication
- COM 250 Small Group Communication
- COM 272 Persuasion
- COM 310 Nonverbal Communication

In addition, fifteen credit hours must be selected from the following course offerings:

- COM 150 Business Communication
- COM 271 Argumentation
- COM 290 Organizational Communication
- COM 320 Intercultural Communication
- COM 380 Rhetorical Theory
- 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' chosen division of expertise, and must be approved by their advisors. Listed below are some examples of possible supportive coursework found in other departments within the College of Arts and Sciences.

### **DIVISION I INFORMATION SYSTEMS**

- CS 160 Computer Programming I
- CS 260 Computer Programming II
- CS 169 Computer Organization and Programming
- CS 269 Machine and Assembler Language
- CS 369 Systems Programming

### **DIVISION II INTERPERSONAL COMMUNICATION**

- BIO 151 Neurobiological Basis of Behavior
- PLY 102 Introduction to Philosophy: The Myth of Certainty
- PSY 320 Psychology of Personality
- PSY 330 Social Psychology
- PSY 360 Cognitive Processes

### **DIVISION III MASS COMMUNICATION**

- SOC 310 Social Change
- SOC 312 Social Stratification
- SOC 355 Social Structure and Politics
- POL 210 Power and Change in Society
- POL 258 Public Opinion

### **DIVISION IV ORGANIZATIONAL COMMUNICATION**

- PSY 311 Industrial Psychology
- SOC 315 Personality and Social Systems
- SOC 332 Industrial Sociology
- SOC 356 Social Organization
- SOC 357 Bureaucracy in Modern Society

### **DIVISION V INTERCULTURAL COMMUNICATION**

- ANY 301 Culture Contact and Culture Change

- SOC 371 Race and Culture Conflict
- POL 104 Introduction to International Relations
- POL 274 Current International Problems
- POL 388 International Organization

### **DIVISION VI POLITICAL COMMUNICATION**

- POL 102 Man and Politics
- POL 257 Political Parties
- POL 292 American Political Thought
- PLY 240 Political Philosophy
- SOC 355 Social Structure and Politics

### **DIVISION VII INSTRUCTIONAL COMMUNICATION**

- PSY 351 Psychology of Motivation
- PSY 360 Cognitive Processes
- PLY 102 Introduction to Philosophy: Ways of Knowing
- PLY 104 Introduction to Philosophy: The Myth of Certainty
- SOC 331 Sociology of Education

### **DIVISION VIII HEALTH COMMUNICATION**

- SWE 199 Self-Concept and the Handicapped
- SWE 350 Social Problems and Social Welfare Policy
- SWE 370 Human Development and Social Welfare
- SOC 333 Sociology of Medicine
- SOC 374 Sociology of Mental Health and Mental Illness

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

- CS 100 Introduction to Computer Science
- MS 120 Introduction to Statistics
- MS 264 Statistical Methods for Research
- PLY 250 Philosophy of Science

## COURSE DESCRIPTIONS COMMUNICATION

### 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

A lecture-discussion course designed to provide students with a conceptual framework of the basic elements of communication. Topics discussed will include communication theory, self-concept, language and perception, small group communication, and nonverbal behavior. 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

A lecture-discussion course designed to acquaint the student with the elemental components of interpersonal communication, its basic nature and function. The course involves a study of the potential of human communication; the phenomenon of communication through a study of logic, dialectic, and critical and creative thinking. These topics are brought to focus upon the problems of misunderstanding and their remedy. Cr 3.

### COM 250 Small Group Communication

Kivatsky

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 relevant variables in small-group interactions. Cr 3.

### COM 271 Argumentation

A lecture-discussion course in analysis, development, strategy, and tactics of

rational discourse. Primary emphasis is upon the uses of evidence and logic as tools of argumentative inquiry and argumentative advocacy. Rationality is examined in the context of alternate life styles. Cr 3.

### COM 272 Persuasion

A lecture-discussion course in art of influencing human behavior by means of communication. A study of the art of persuasion as a means of defense against the multitude of persuasive messages to which a member of contemporary American society is subjected. Investigation of the ethics of persuasion; beliefs; attitudes and values; and the persuasive impact of motivational appeals and other psychological factors. Cr 3.

### COM 290 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, decision-making, leadership, and the nature of organizational change. 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 either conduct a research project or prepare a scholarly paper related to a particular area of nonverbal 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 380 Rhetorical Theory**

A lecture-discussion course designed to investigate the literature in rhetorical theory from Aristotle to Kenneth Burke and I. A. Richards. Emphasis is placed upon the study of rhetoric as the art of discourse adapted to its end. Students will be required to complete a series of short critical research projects and to report the results in class. Final paper required. Prerequisite: any 3-credit communication course. Cr 3.

**COM 420 Communication and Cognition**

A lecture-discussion course designed to explore the relationships and interactions of communication and thinking. Emphasis is upon rationality as it may be influenced by language. Discussion topics include language acquisition, the Whorfian hypothesis, grammatical structures, and cultural influences upon communication and cognition. Prerequisites: Junior, Senior or permission. Cr 3.

**COM 430 Communication Internship**

An in-depth study of specific areas of communication theory conducted in the field. Students will focus their research efforts in an area related to their choice of com-

munication expertise (i.e., Organizational Communication, Mass Communication, Intercultural Communication). Prerequisite: A precise definition of the research project, and advisor's consent.

Cr var.

**COM 490 Theories of Mass Communication**

A discussion of significant factors related to mass communication systems. 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 may elect to examine an aspect of mass communication which is of interest to them, and present their findings in a major research paper or project. Prerequisite: COM 102 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. Cr 3-6.



## **CRIMINAL JUSTICE**

Peter M. Lehman, Coordinator

The Criminal Justice Program is a four-year multidisciplinary program leading to a bachelor of arts degree. The program is designed to present Criminal Justice students with a broad interdisciplinary perspective on Criminal Justice institutions and the social systems within which they operate. Students in the program are thus provided a broad range of post-graduation employment opportunities, as well as a valid foundation for graduate study in the social sciences or law.

### **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, 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 are: SOC 305, SOC 306, PSY 205, PSY 355, SWE 455)

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)**

- HIST 273 History, Literature and Drama of Nazi Germany
- POL 210 Power and Change in American Society
- POL 233 The American City
- POL 251 Public Administration
- POL 283 The American Judicial System
- POL 292 American Political Thought
- SOC 335 Sociology of Penology and Corrections
- SOC 337 Sociology of Juvenile Justice
- SOC 357 Bureaucracy in Modern Society
- SWE 351 Human Services and the Consumer
- SWE 364 Comparative Social Welfare Systems

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

- PLY 103 Introduction to Philosophy: Human Alienation
- PLY 109 Introduction to Philosophy: Law and Anarchy
- PSY 224 Adolescent Development
- PSY 326 Mental Deficiency
- PSY 333 Psychopathology
- SOC 200 Social Problems
- SOC 374 Sociology of 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 305 Comparative Judicial Behavior
- SOC 314 Social Control

- SOC 336 Law and Society  
 SOC 371 Race and Culture Conflict  
 SWE 350 Social Problems and Social Welfare Policy

**NOTE:**

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.

## **COURSE DESCRIPTIONS**

### **CJ215 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. Also listed as SOC 215 (Prerequisite: SOC 100 or POL 102) Cr3.

### **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) Cr3.

### **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. (Prerequisite: CJ 215) Cr3.

### **CJ 310 Comparative Criminal 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. (Prerequisite: CJ 215) Cr3.

### **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. (Prerequisite: CJ 215 or permission) Cr3.

### **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. Cr3.

### **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) Cr3.

### **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. Cr1-3.

### **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. Cr3.

## EARTH SCIENCES, PHYSICS, AND ENGINEERING

Chairman of Earth Sciences, Physics, and Engineering Department: Irwin Novak, 150 Physical Science Building, Portland.

Professor Miller; Associate Professors Armentrout, Ayers, Grass, Hare, Hopkinson, Novak, Pendleton, Walkling.

Courses offered by the Department of Earth Sciences, Physics, and Engineering are grouped under the following headings:

### **ASTRONOMY**

**EARTH SCIENCE** (including Meteorology, and Oceanography)

### **ENGINEERING**

### **GEOLOGY**

### **PHYSICAL SCIENCE**

### **PHYSICS**

Degree programs in Earth Science and Earth Science/Geology Concentration are offered in the College of Arts and Sciences.

C.A.S. students who ultimately desire to major in Engineering or Physics can complete the first two years of work here and finish the third and fourth years at the Orono campus of the University of Maine.

A Science Area Major in Secondary Education, including a selection of both biological and physical sciences is coordinated by this department.

An Earth Science Area Major in Secondary Education is coordinated by the department also.

Students in the Kindergarten-Primary or Elementary programs of the School 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 below, immediately after the

outline for the Secondary Education major program.

All students are reminded that, in addition to the necessity of 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 EARTH SCIENCE PROGRAM**

Three four-year programs are offered in the Earth Sciences. The programs are designed so that upon completion a student may enter public school teaching, graduate school, or seek work in conservation, state and federal parks and planning agencies, or in industry. Within the Earth Science Major a Geology concentration is available for those students intending to pursue a professional career in geology. The requirements for this program follow the requirements for all other Earth Science majors.

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 environmental science.

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 requirements. The Earth Science Major in Secondary Education requires the completion of a minimum of 65 credit hours in addition to the University's general requirements and the Secondary Education certification requirements of the State of Maine.

# **REQUIREMENTS FOR AN EARTH SCIENCE MAJOR IN ARTS AND SCIENCES OR AN EARTH SCIENCE MAJOR IN SECONDARY EDUCATION**

GEOL 111	Physical Geology	4
GEOL 112	Historical Geology	4
CHEM 113,114	Qualitative Principles of Chemistry	5
CHEM 115,116	Qualitative Principles of Chemistry II	5
PHYS 111-112 or	Elements of Physics	8-10
PHYS 121-122	General Physics	
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.		
		<b>41-43</b>

Of the following courses, Arts and Sciences majors are required to take 31-33 credits, including at least 15 credits of 200 level and 9 credits of 300 level courses, and PSCI 498, Independent Study; Earth Science majors in

Secondary Education are required to take 24 credits, at least 12 credits of 200 level courses, including GEOL 203, and a minimum of 6 credits of 300 level courses.

ASTR 210	Observational Astronomy	3
CHEM 141	Environmental Chemistry	3
ESCI 200	Environmental Science	3
ESCI 201	Conservation	3
GEOL 114	Environmental Geology	4
GEOL 202	Geomorphology (also GEOG 202)	3
GEOL 203	Mineralogy	3
GEOL 205	Geological Oceanography (also OCN 205)	3
GEOL 301	Structural Geology	3
GEOL 302	Sedimentology	3
GEOL 310	Glacial and Pleistocene	3
OCN 210	Oceanographic Techniques	2
OCN 310	Applied Marine Science	4
PSCI 310	History of Science	3
PSCI 498	Independent Study	1-3

## **REQUIREMENTS FOR AN EARTH SCIENCE MAJOR WITH A CONCENTRATION IN GEOLOGY**

The Earth Science Major with a concentration in Geology requires the completion of a minimum of 57 credits in addition to the University's general requirements.

Chemistry and Physics:

CHEM 113,114	Qualitative Principles of Chemistry	5
CHEM 115,116	Qualitative Principles of Chemistry II	5
PHYS 111-112 or		8-10
PHYS 121-122		

A minimum of 6 credits of mathematics selected from MS 120, MS 140, MS 152 or courses with second digit higher than 5.

Geology:

GEOL 111	Physical Geology	4
GEOL 112	Historical Geology	4
GEOL 114	Environmental Geology	4
GEOL 202	Geomorphology	3

GEOL 203	Mineralogy	3
GEOL 301	Structural Geology	3
GEOL 302	Sedimentology	3
GEOL 495	Geology Seminar I	1
GEOL 496	Geology Seminar II	1
GEOL 498	Independent Study in Geology	1-3
Electives:	At least 6 credits chosen from remaining geology courses with consent of adviser.	6

### REQUIREMENTS FOR A SCIENCE AREA MAJOR IN SECONDARY EDUCATION

The Science Area Major in Secondary Education requires completion of a minimum of 50 credit-hours and provides for a broad preparation in several fields. This major is intended primarily for those students planning to teach in grades seven through nine. Completion of this program and required courses in education, including those needed to meet the University's General Requirements, enables one to receive the State of Maine Secondary Science Area Certificate.

#### Freshman Year

Chemistry or Physics. Freshmen should take one of the following eight- or ten-credit sequences. At the end of the Sophomore year, the student should have at least eight hours of Physics and at least ten hours of Chemistry.

CHEM 113,114	Qualitative Principles of Chemistry	5
CHEM 115,116	Qualitative Principles of Chemistry II	5
or		
PHYS 111 and 112	Elements of Physics	8
or		
PHYS 121 and 122	General Physics	10

It is recommended that the six hour General Education Mathematics-Science requirement be met by taking six hours of Mathematics.

#### Sophomore Year

BIO 101 and 102	Biological Principles (3 credits) plus Biological Experiences (1 credit) to be taken together	4
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#### Freshman, Sophomore, Junior or Senior Years

##### Group A - 12 Credit Hours Required

GEOL 111	Physical Geology	4
GEOL 112	Historical Geology	4
ASTR 100	Astronomy	3
MET 100	Meteorology	3

##### Group B - Credit Hours Required

BIO 215 and 216	Vascular Botany (3 credits) plus Vascular Field Botany (1 credit)	
or	to be taken together	4
BIO 225 and 226	Non-vascular Botany (3 credits) plus Non-vascular Field Botany (1 credit)	
	to be taken together	4
BIO 209 and 210	Vertebrate Zoology	3
or	plus optional Vertebrate Zoology Lab	1
BIO 351 and 352	Invertebrate Zoology (3 credits) plus Survey of Invertebrates (1 credit)	
	to be taken together	4



or other course(s)	in Biology acceptable to the adviser	4
<b>Group C - 3 Credit Hours Required</b>		
ESCI 202	Conservation	3
PSCI 310	History of Science	3
BIO 251	History of Biology	3

### Electives

To complete the required 50 hours for a major, the student may choose from previously listed courses which have not been taken before and from the following electives:

ASTR 210	Observational Astronomy	3
BIO 103 and 104	Biological Diversity (3 credits) plus Survey of Animals and Plants (1 credit) to be taken together	4
BIO 111 and 112	Human Anatomy and Physiology (3 credits) plus Practical Anatomy and Physiology (1 credit ) to be taken together	4
BIO 201	Principles of Genetics	3
BIO 205	Evolution	3
BIO 295	Ornithology	2
BIO 311 and 312	Microbiology (3 credits) plus Microbiological Laboratory (2 credits) to be taken together	5
BIO 331 and 332	Ecological Principles (2 credits) plus Field Ecology (1 credit) to be taken together	3
BIO 372	Biological Techniques	2
BIO 381 and 382	Ichthyology (2 credits) plus Field Ichthyology (2 credits) to be taken together	4
BIO 461	Cell Mechanisms	3
BIO 481	Cellular Biology	3
CHEM 141	Environmental Chemistry	3
CHEM 251 and 252	Organic Chemistry (3 credits) plus Organic Chemistry Laboratory (2 credits) to be taken together	5.5
CHEM 253 and 254	Organic Chemistry II	5.5
ESCI 200	Environmental Science	3
ESCI 201	Natural Science	3
GEOL 114	Environmental Geology	4
GEOL 202	Geomorphology	3
GEOL 203	Mineralogy	3
GEOL 205 or		
OCN 205	Geological Oceanography	3
GEOL 301	Structural Geology	3
OCN 100	Oceanography	3
PHYS 210	Introductory Modern Physics	4
PHYS 221 and 222	Intermediate Physics	8
PHYS 390	Independent Physics Laboratory	3

**NOTE:** In addition to the 50 hours of course work selected above, EDU 318, Teaching Science in the Secondary School, is required of all Science Area Majors in Secondary Education.

## REQUIREMENTS FOR A SCIENCE AREA MINOR AND MAJOR FOR STUDENTS IN THE KINDERGARTEN-PRIMARY 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, 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) ESCI 120 Concepts of Earth Science
- (3) 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 210	Observational Astronomy
BIO 103	Biological Diversity
BIO 104	Survey of Animals and Plants
CHEM 101	Chemistry for Health Sciences I
CHEM 113	Qualitative Principles of Chemistry
ESCI 120	Concepts of Earth Science
ESCI 200	Environmental Science
ESCI 202	Conservation
GEOL 111	Physical Geology
GEOL 112	Historical Geology
PSCI 310	History of Science
MET 100	Meteorology
OCN 100	Intro to Oceanography
PSCI 110	Elements of Physical Science
PHYS 100	Descriptive Physics

### ASTRONOMY

#### COURSES IN ASTRONOMY

##### **ASTR 100 Astronomy**

Ayers

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. Planetarium sessions and optional evening observations with telescopes are included. No prerequisites. Offered Fall and Spring Semester. Cr 3.

##### **ASTR 105 Astronomy in the Planetarium**

Ayers

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**

Ayers

Star charts, atlases, binoculars, 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. Offered every fall. Cr 3.

### EARTH SCIENCE

#### COURSES IN EARTH SCIENCE

##### **ESCI 120 Concepts of Earth Science**

Pendleton

A one semester course introducing students to basic processes as they apply to Geology, Astronomy, Meteorology and Oceanography. Man's relationship to these processes is emphasized. 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 four 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 200 Environmental Science**

Miller

A study of basic relationships of plants, animals, and men to their physical and biotic environment. This includes a study of biomes, habitats, and communities interpreted in varying stages of succession or stratification as influenced by the limiting factors of their environment. Some emphasis is placed on species dynamics and population changes. Weekly field trips when weather permits. Two hours, lect., Two hours, lab. Each Semester.

Cr 3.

### **ESCI 201 Natural Science**

A course primarily for teachers in the elementary school, it includes a variety of topics in the area of biology: insect metamorphosis, bird migration, fossil records, animal communities, plant communities, animal behavior, reproduction, survival foods, fungi and man, and related subjects. Emphasis is on obtaining an understanding and appreciation of the flora and fauna of New England. Three lectures.

Cr 3.

### **ESCI 202 Conservation**

Miller

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. Spring Semester, each year.

Cr 3.

### **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**

Hare

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. Each semester.

Cr 3.

### **OCN 100 Introduction to Oceanography**

Hare, Novak

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 205 Geological Oceanography (also GEOL 205)**

Novak

Shoreline erosion, transportation, and deposition; 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: Physical Geology or Oceanography or permission of the instructor. Three hours, lecture. Fall Semester, Odd Years.

Cr 3.

### **OCN 210 Oceanographic Techniques**

A laboratory course in which the student is introduced to some of the techniques and technical processes involved in oceanic measurements. One one-hour lecture and one two-hour laboratory period each week. Prerequisite: OCN 100 or permission. Cr 2.

### OCN 310 Applied Marine Science

Applications of basic research techniques of the biological and physical sciences to the study of marine and estuarine ecosystems. Emphasis on field investigations of unspoiled and polluted coastal habitats (e.g., rocky shorelines, beaches, salt marshes, estuaries), their biological, physical and chemical components. Special considerations of man's impact on the coastal environment, contemporary problems of the Maine coast and alternatives to their solution. (Offered during summer session only) (Offered on P/F basis only.) Cr 4.

### ENGINEERING

A general first year program is offered which is applicable to further studies in any of the various engineering fields. An additional second year program is available in Engineering Physics. All students successfully completing these courses of study may continue at the Orono campus of the University of Maine for the completion of the degree requirements in the engineering department of their choice. The transfer procedures to effect continuance at the Orono campus are normally initiated through the Engineering adviser.

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 UMO catalog for details is advised.

### ENGINEERING GENERAL FRESHMAN YEAR

#### Fall Semester

Subject	Credit Hours
CHEM 113 Qual Princ of Chemistry	3
CHEM 114 Qual Lab Techniques	2
GEE 101 Intro to Eng Design I	2
GEE 105 Eng Orientation I	1

MS 152 Calculus A	4
PHYS 121 General Physics I	5
Total	17

#### Spring Semester

Subject	Credit Hours
CHEM 115 Qual Princ of Chemistry II	3
CHEM 116 Qual Lab Tech II	2
GEE 102 Intro to Eng Design II	2
GEE 106 Eng Orientation II	1
MS 153 Calculus B	4
PHYS 122 General Physics II	5
Total	17

Note for prospective Civil and Mechanical Engineering students: the spring semester chemistry courses CHEM 115 and CHEM 116 are not required but may be taken if desired. The fall semester chemistry courses CHEM 113 and CHEM 114 are required but may be deferred until the sophomore year at the Orono campus. In either case, suitable electives should be substituted.

### ENGINEERING PHYSICS SOPHOMORE YEAR

#### Fall Semester

Subject	Credit Hours
MEE 255 Statics of Strength of Mat'ls	3
MS 252 Calculus C	4
PHYS 221 Intermediate Physics	5
Elective	3
Elective	3
Total	18

#### Spring Semester

Subject	Credit Hours
MEE 221 Materials Science	3
MS 350 Differential Equations	3
PHYS 222 Intermediate Physics	5
Elective	3
Elective	3
Total	17

### COURSES IN ENGINEERING

#### 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 2.

### **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 2.

### **GEE 105 Engineering Orientation I**

A series of meetings involving lectures and discussions, with frequent use of audio-visual material to acquaint engineering freshmen with the nature of engineering and science, supplemented by field trips to representative industries. Cr 1.

### **GEE 106 Engineering Orientation II**

A continuation of GEE 105 Cr 1.

### **GEE 207 Computer Programming**

Numerical analysis and digital computer programming using FORTRAN. Theory and implementation of algorithms for zero-searching, solution of linear systems, interpolation, integration, differentiation and the solution of differential equations. Prerequisite: MS 252 (may be taken concurrently). 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 250 Applied Mechanics: Statics**

The study of static force systems and equilibrium, bridge trusses and structural models, distributed forces, friction, centroids and moments of inertia. Cr 3.

### **MEE 251 Strength of Materials**

The principles of solid mechanics and their applications to engineering design problems; stresses and deformations of axially, transversely, and torsionally loaded members, and combined stresses; connections, pressure vessels, shafts, beams, and columns. Prerequisites: MEE 250 and MS 252. Cr 3.

### **MEE 252 Applied Mechanics, Dynamics**

A study of motion of particles and rigid bodies; force, mass and acceleration; work and energy; impulse and momentum, and simple harmonic motion. Prerequisites: MS 252 and MEE 255. 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.

### **ELE 201 Circuit Analysis I**

Basic laws and theorems of electric circuits; solution of circuits represented by first and second order differential equations. Prerequisite: PHYS 122. Cr 5.

### **ELE 202 Circuit Analysis II**

Phasor solution of a-c circuits and coupled circuits; balanced three-phase systems; introduction to complex frequency. Prerequisite: ELE 201. Cr 3.

### **ELE 209 Electrical Engineering Materials**

A study of the principles of materials science with emphasis on electrical properties. Diffusion, oxidation, electrochemistry, energy bands, emission, thermal properties, conduction theory, semiconductor junctions, thermoelectricity, magnetic properties, dielectric properties, optical properties. Cr 3.

### **ELE 212 Basic Electrical Laboratory**

Use of techniques developed in ELE 201 and 202 for the analysis of circuits containing linear, non-linear, passive and active elements; includes analysis of simple electronic circuits and the use of the oscilloscope. Prerequisite: ELE 202 required concurrently. Cr 2.

## **GEOLOGY**

### **COURSES IN GEOLOGY**

#### **GEOL 111 Physical Geology**

Miller, Novak, Pendleton

A study of the ever-changing earth by wind, water, volcanism, crustal movement, and glaciation. The identification of common rocks and minerals is included. Weekly field trips when weather permits. Two Hours Lecture. Three Hours Lab. Each Fall. Cr 4.

#### **GEOL 112 Historical Geology**

Miller, Novak, Pendleton

Study of the earth's history in terms of physical, chemical and biologic change from its origin to the present time. Focus upon the methods of determining chronology and conditions through fossils and structural characteristics. Two Hours Lecture. Three Hours Lab. Each Spring. Cr 4.

#### **GEOL 114 Environmental Geology**

Novak

Application of the science of geology to environmental problems resulting from man's intense use of the earth and its natural resources. Prerequisite: GEOL 111 or permission of the instructor. Two 75-min. Lecture Sessions, One Two Hour Lab. Spring Semester, Even Years. Cr 4.

#### **GEOL 202 Geomorphology**

(Also GEOG 202)

Novak

Description and interpretation of landform development in terms of geologic structure, process, and stage. Field trips. Prerequisite: GEOL 112. Two Hours Lecture. Two Hours Lab. Fall Semester, Even Years. Cr 3.

#### **GEOL 203 Mineralogy**

Miller

An introduction to descriptive crystallography, and a study of the physical properties and chemical structures of common rock-forming minerals. Field trips and laboratory analysis are an important part of the course. A basic course in chemistry is desirable. Prerequisite: GEOL 111, or 112. Two Hours Lecture. Two Hours Lab. Fall Semester, Even Years. Cr 3.

#### **GEOL 205 Geological Oceanography (also OCN 205)**

Novak

Shoreline erosion, transportation, and deposition; the origin and structure of the continental shelves and ocean basins. Coastal and oceanic processes; geomorphic development of the marine environment. Special emphasis will be given to the evolution of the New England coast through field examination of salt marshes, estuaries, and beaches. Prerequisite: Physical Geology or Oceanography, or permission of instructor. Three Hours Lecture. Fall Semester. Odd Years. Cr 3.

#### **GEOL 301 Structural Geology**

Miller

This course is a study and interpretation of rock structure, intrusions, and deformation. Considerable time is spent in field study, geologic mapping, and bed-rock interpretation. Some time is devoted to mineral and ore formations. Prerequisite: GEOL 203. Two Hours Lecture. Two Hours Lab. Fall Semester, Odd Years. Cr 3.

#### **GEOL 302 Sedimentation**

Novak

Source materials, mechanics of transport and dispersal, depositional environments, lithification and diagenesis of sediments. Students will analyze common problems in applied fields due to these phenomena. Prerequisite: GEOL 203. GEOL 202 recommended. Field trips. Two Hours Lecture. Two Hours Lab. Spring Semester, Odd Years. Cr 3.

#### **GEOL 310 Glacial and Pleistocene**

**Geology**

Miller

Glacial processes, deposits and the stratigraphy of the Pleistocene Epoch. Emphasis on the erosional and depositional features of glacial events in Maine. Prerequisite: GEOL 111 or 112. Two Hours Lecture. Two Hours Lab. Spring Semester, Odd Years. 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. Prerequisite: Junior or Senior standing. On demand. Cr 1-3.

## **PHYSICAL SCIENCE**

### **COURSES IN PHYSICAL SCIENCE**

#### **PSCI 103 Science for Technology I**

Pendleton

A one-semester course which attempts to tie chemical theory to the practical problems relating to Industrial Arts. Two hours of lecture and one two-hour lab per week. Offered Spring semester only. Cr 3.

#### **PSCI 104 Science for Technology II**

Grass

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. Cr 3.

#### **PSCI 110 Elements of Physical Science**

Ayers and Pendleton

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**

Whitten

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 relation of science to

technology, and the implications of both for society. Prerequisite: two years of science. Cr 3.

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

Sottery

Readings and discussion 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 interaction between scientists and society, and the relationship between research and technology are also examined. Prerequisite: senior students, others by permission. Not offered every year. 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.

## **PHYSICS**

The University of Maine offers undergraduate degrees in two four-year programs in physics: Physics, in the College of Arts & Sciences, and Engineering Physics in the College of Technology. Degrees in both of these programs are given by the University of Maine at Orono and must be completed there. However, the freshman and sophomore years of both programs are in routine operation at the University of Maine at Portland-Gorham and 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.

Except for elective courses, the Freshman and Sophomore curricular in both Physics and Engineering Physics are usually the same as the Engineering curricula for the first two years. Students intending to major in Physics or Engineering Physics should plan their programs with the help of their departmental adviser, using as a guide the specimen curricular shown in the

ENGINEERING section of this catalog.

With the activation of the new Physical Sciences building on the Portland campus in the summer of 1976, it will be possible to offer a more varied Physics program. Courses are being studied for presentation as soon as possible. Students interested in these offerings should consult the Department.

### **REQUIREMENTS FOR A PHYSICS MINOR FOR SECONDARY EDUCATION**

#### **Group A - 8 credit hours required**

		<b>Credit Hours</b>
PHYS 111 and 112	Elements of Physics (4 credits each semester) to be taken as a two-semester sequence	8
or		
PHYS 121 and 122	General Physics (5 credits each semester) to be taken as a two-semester sequence	10

#### **Group B - 8 credit hours required**

PHYS 210	Introductory Modern Physics	4
PHYS 221	Intermediate Physics	5
PHYS 390	Independent Physics Laboratory	3

#### **Group C - Elect sufficient courses so total credit hours of Groups A, B, and C is at least 18 hours.**

ASTR 100	Astronomy	3
ASTR 210	Observational Astronomy	3
MET 100	Meteorology	3
OCN 100	Oceanography	3

In Group C, substitutions can be made which are acceptable to the departmental adviser.

### **COURSES IN PHYSICS**

#### **PHYS 100 Descriptive Physics**

Armentrout

For the non-science student. A treatment in non-mathematical language of the more important topics in physics. Designed to develop an appreciation for the concepts, vocabulary, and methods of the science rather than a false sense of mastery. Lecture 3 hours. Cr 3.

#### **PHYS 105 Acoustics and Noise**

Walking

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 will be provided. Prerequisite: a course in high school algebra. Cr 3.

#### **PHYS 111 Elements of Physics I**

Grass

An introduction to the fundamental concepts of mechanics, sound and heat. Lectures, problem solving, demonstrations, laboratory exercises and visual aids will be used to develop an understanding of physical phenomena. Prerequisites: high school algebra. Lecture 3 hours, lab. 2 hours. Cr 4.

#### **PHYS 112 Elements of Physics II**

Grass

A continuation of Physics I considering the topics: optics, electricity and modern physics. Lecture 3 hours, Lab. 2 hours. Cr 4.



**PHYS 121 General Physics I**

Walkling

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 3 hours, Rec. 2 hours, Lab. 2 hours. Cr 5.

**PHYS 122 General Physics II**

Walkling

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 3 hours, Rec. 2 hours, Lab. 2 hours. Cr 5.

**PHYS 210 Introductory Modern Physics**

Grass

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 3 hours, Lab. 2 hours. Cr 4.

**PHYS 221 Intermediate Physics I**

Armentrout

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 2 hours, Rec. 2 hours, Lab. 3 hours. Cr 5.

**PHYS 222 Intermediate Physics II**

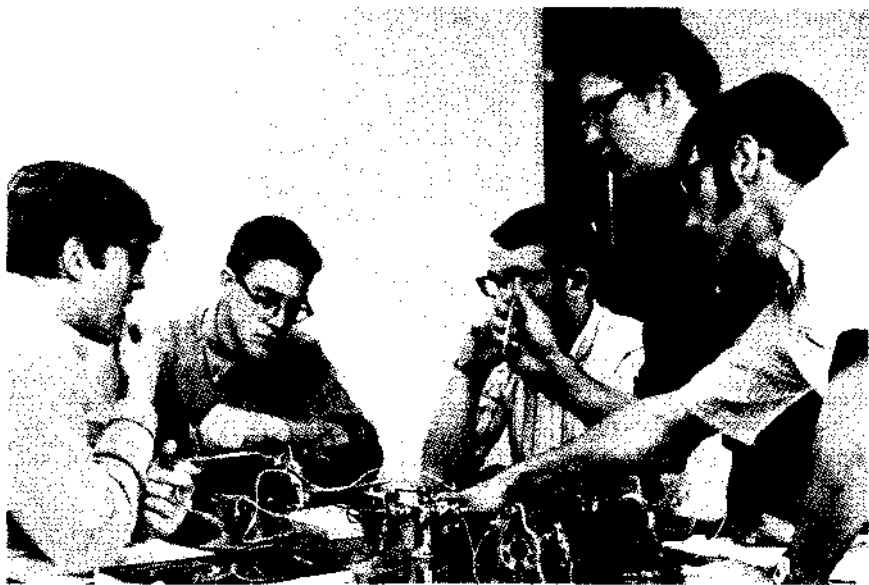
Armentrout

A continuation of PHYS 221. Topics include electricity, magnetism and optics. Lecture 2 hours, Rec. 2 hours, Lab. 3 hours. Cr 5.

**PHYS 390 Independent Physics**

Laboratory

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.



## ENGLISH

Chairman of English Department: Ernest E. Weeks, 200-G Bailey Hall, Gorham

Professors Bernard, Hanna, Jaques, Rutherford, Weeks; Associate Professors Baier, Burke, Carper, Coffin, O'Reilly, Reuter, Rosen, Slavick; Assistant Professors Carner, Selkin, Vincent, Wilson, Wolf; Visiting Assistant Professor Mirto.

As Aristotle says, the knowledge found in literature is limited neither by facts, as in history, nor by abstraction, as in philosophy. In literary art, facts and ideas meet in significant experience. Literature orders and represents reality in an understandable form. It does so through the transforming powers of the imagination and words.

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 satisfying the Humanities core requirement in English should begin with English 120, except when English 120 is waived. Courses numbered below 120 cannot be used to satisfy the Humanities

core requirement. Most courses numbered between 121 and 400 may be elected as a second Humanities course without further prerequisites. Students in other College disciplines and the Schools may elect any English course. Prerequisites are indicated in the course description.

The English major begins with a course in writing (100 or 101), an introduction to the study of literature (120), and an introduction to great works in Western literature from *The Bible* to *Don Quixote* (121). The major is then free to satisfy area, genre, and the 36-English credit requirements in a variety of ways: a student may exercise a preference for major figure, genre, or historical period courses and may choose several writing or criticism courses. Experimental courses and independent study credit are also available. Majors may count certain courses in other departments toward the English major.

While the Department does not require courses in other disciplines, majors are 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, 105), 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, 362, 460).

## PREREQUISITES AND COURSE WAIVERS

1. ENG 120 must be taken before any other courses numbered above ENG 120, with the exception of courses listed under Category IV, Linguistics and Related Courses, and English 121, which may be taken concurrently with English 120. ENG 120 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.
2. Other prerequisites are indicated in the course descriptions.

## ENGLISH MAJOR PROGRAMS IN ARTS AND SCIENCES OR SECONDARY EDUCATION

In addition to meeting English Department requirements, the B.A. or B.S. candidate must also meet any college or school requirements and the general education requirements of the University.

Both Arts and Sciences and Secondary Education 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. English 100 or 101, English 120, and English 121.
2. At least 36 hours of courses acceptable for English major credit (numbered 200 or above)
3. One course in each of the following categories:  
Category II, Category III, Category IV, Category VI-A, VI-B Shakespeare, a

second VI-B course, Category VI-C, Category VI-D, Category VII, and Category VIII.

4. Major credit courses in each of the following genres:  
(a) poetry or prose and poetry, (b) drama other than Shakespeare, (c) fiction, (d) major figure other than Shakespeare. Courses satisfying area requirements in item 3 above may also satisfy the genre requirements of item 4.
5. The requirements of the English Major Program defined below may be waived in favor of a self-designed major that is approved in advance by the English Department Curriculum Committee.

## ENGLISH MINOR PROGRAM IN SECONDARY EDUCATION

Secondary Education students in the College of Education may obtain an English minor by completing the following requirements (**all courses must be passed with a grade of C or better**): One course each in Category III and Category IV, and two courses each in Category VI and Categories VII or VIII.

## ACADEMIC MAJORS AND MINORS IN KINDERGARTEN-PRIMARY AND ELEMENTARY EDUCATION

Students in Elementary Education or Kindergarten-Primary 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

### I—INTRODUCTORY COURSES

#### WRITING COURSES

##### ENG 01 Writing Laboratory

A Writing Laboratory is available on both campuses for any student who needs help with any writing problem, from organizing a term paper to preparing a job application. (Every semester) Cr 0.

##### ENG 50 Proficiency Writing

This non-credit course will help those whose present writing skills are likely to be a handicap in their college work. Emphasis is on basic mechanics, including agreements, simple patterns of organization, and logical structures for sentences and paragraphs. (Every semester) Cr 0.

### **ENG 100 College Writing**

Classes of fifteen students will meet regularly to analyze professional and student writing as a way of sharpening awareness of how to use language effectively. The writing assignments will encourage students to apply the principles discussed in class to their own work. Recommended for freshmen. Only English 100 or 101 may be taken. This course cannot be used to satisfy a Humanities requirement. (Every semester) Cr 3.

### **ENG 101 Independent Writing**

Students who realize that they need help to improve their writing and who are willing to work independently 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. Only English 100 or 101 may be taken. This course cannot be used to satisfy a Humanities requirement. (Every semester) Cr 3.

### **ENG 119 Expository Writing**

Training in clear expository writing of formal reports, business communications, and related material. Limited to Associate Degree Business students. (Every semester) Cr 3.

## **LITERATURE COURSES**

### **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—six papers, two in each of the genres.

N.B. Prerequisite for all English courses numbered above 120. May be taken concurrently with English 121. (Every semester) Cr 3.

### **ENG 121 Literary Masterpieces**

A study of selected major works of classical and continental literature which will provide students with a background for understanding the most influential books of our culture. Required for all English majors. (Every semester) Cr 3.

## **II—WRITING COURSES**

### **ENG 202 Poetry Workshop I**

Rosen

An intensive study of poetic forms and techniques, with extensive discussion of the students' own poetry. Emphasis on understanding various techniques through reading and imitation. May be taken for one to six hours of credit, but only three in a single semester. (Fall) Cr 1-6.

### **ENG 203 Fiction Workshop**

Rosen

The writing and discussion of fiction. Emphasis will be on the short story. May be taken for one to six hours of credit, but only three in a single semester. (Spring) Cr 1-6.

### **ENG 204 Advanced Writing**

Burke, Selkin

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. (Annually) Cr 3.

### **ENG 205 Creative Writing**

Vincent

An advanced course. Focus is on the writing of a short story; includes a study of plot, design, point of view, characterization, tension and related techniques, modes of creative thinking, and the transformation of experience into the medium of story. (Fall) Cr 3.

### **ENG 210 Expository Writing**

Primarily for juniors and seniors majoring in Business Administration. Training in clear expository writing of formal reports, business communications, and related materials. Cr 3.

## **III—CRITICISM COURSES**

### **ENG 364 Critical Approaches to Literature**

Wilson

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. (Annually) Cr 3.

### **ENG 365 Study of Literature and Literary Criticism**

Carner

An examination of the discipline called "Literature" or "English" or "Criticism." This course attempts to define the aims and ends of literary study, ways of knowing about literature and the creative act, and the relations of literature to life. It includes formalism, historicism, bibliography, psychological criticism, and a number of other critical methods. In short, a survey of the discipline, its meaning, and tools. Recommended especially for sophomores who want an introduction to the major and the seniors who want an overview. (Fall, 1976; Spring, 1978) Cr 3.

### **ENG 367 Topics in Literary Criticism**

Carner

Studies in specific problems or historical movements in literary criticism. Topics will change from year to year. Typical topics: myth and myth criticism; a study of ancient and modern myth systems including Biblical, medieval, and 20th century texts; psycho-analytic theory as myth. Typical texts: *Genesis*, *Exodus*, *Apocalypse*, Grimm's *Fairy Tales*, *The Golden Bough*, *Totem and Taboo*, *Moses and Monotheism*, and *The Myth of the Birth of the Hero*. (Spring, 1977) Cr 3.

## **IV—LINGUISTICS AND RELATED COURSES**

### **ENG 220 Old English**

Coffin

The students develop Old English reading ability by working with the best Old English poems and prose. Modern techniques of rapid language acquirement are used. (Fall, even years) Cr 3.

### **ENG 380 History of the English Language**

Bernard, Rutherford

This course includes a survey of the pre-history 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 semester) Cr 3.

### **ENG 381 Modern Grammars**

Rutherford

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. (Fall, 1976) Cr 3.

### **ENG 382 Introduction to Linguistics**

Rutherford

A general introduction to modern linguistic science, including studies in the development of language, phonology, morphology, the dictionary, and varieties of English and usage. Also examined are the various grammatical philosophies and their methods—traditional, structural, and transformational. (Spring) Cr 3.

### **ENG 384 Structural Linguistics**

Coffin

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, 1977) Cr 3.

### **ENG 385 Structural Linguistics and Culture**

Coffin

The course analyzes the languages and culture (art, religion, poetry) of preliterate societies, particularly the American Indian. (Fall, 1976) Cr 3.

### **ENG 387 Semantics**

Coffin

Interpretation of literature by means of analysis of the language used. Recommended for prospective teachers of literature and English. (Spring, 1977) Cr 3.

## **V—NON-REQUIRED MAJOR CREDIT COURSES**

### **ENG 200 Topics in Literature**

A selection of courses, dealing with this general subject and varying in content from term to term, is offered each semester. Descriptions of current offerings are

available in the English offices. These courses may be offered in a two-semester sequence, and more than one section may be taken for credit. (Every semester) Cr 3.

#### **ENG 211 (English Lit. I)**

Carper

Close reading of representative texts of writers between Beowulf and Johnson, with particular attention to the historical development of English literature. (Fall, 1977) Cr 3.

#### **ENG 212 (English Lit. II)**

Close reading of representative texts of writers between Blake and the present, including some attention to the relationship of English, Irish, and American literature in the last two hundred years. (Spring, 1978) Cr 3.

#### **ENG 226 Dante**

A careful reading of Dante's *Divine Comedy*, with special attention to cultural history, especially classical and medieval theology, philosophy, literature, and art. Background in literature or philosophy strongly recommended. (Fall, 1977) Cr 3.

#### **ENG 312 The Image of the Black Man in American Literature**

Slavick

A study of the developing image of the black man in American prose and poetry in the context of American culture from stereotype to victim, outsider, masked man, and Everyman, beginning with songs, sermons, and folk tales, with selections from among the following: Douglass, Stowe, Melville, Twain, Cable, Chesnut, DuBois, Heyward, McKay, Cullen, Hughes, James Weldon Johnson, Faulkner, Toomer, Wright, Ellison, Warren, Welty, Tolson, Styron, Baldwin, Leroi Jones, Martin Luther King, Malcolm X, Cleaver, Eli Green, and Theodore Rosengarten. (Spring, odd years except 1977) Cr 3.

#### **ENG 351 Backgrounds of American Thought**

Burke

Readings in the ideas and lives of those figures who were philosophically influential in American life. For upperclass students with a strong background in American, English, and European history and philosophy. Term paper required. Prerequisites: ENG 100 or 101, 120, and 121. (Fall, 1977) Cr 3.

#### **ENG 361 The Principles of Poetry**

Carper

This course is intended to give students a thorough grounding in skills for reading poetry well and discussing it intelligently. It is recommended for those whose earlier experience with poems has been limited and who wish to learn how to understand and enjoy them. Frequent short analytical papers and several verse-writing exercises will be required. Prerequisite: sophomore standing or permission of the instructor. (Spring, 1977) Cr 3.

#### **ENG 362 Poetry in English: A Survey**

Carper

This course first considers representative short poems on recurring themes by early and modern writers; it then takes up important longer works from Chaucer's time to the 1900's. Recommended for students already familiar with the principles of reading poetry well. Prerequisite: sophomore standing or permission of the instructor. (Fall, annually) Cr 3.

#### **ENG 366 Literature and the Visual Arts**

Wilson

This course will examine in chronological sequence the relationship between leading English writers or schools and the movements in European painting, architecture, and sculpture to which they most closely correspond. (Spring, 1977, evening) Cr 3.

#### **ENG 374 Writers of Maine**

Jaques

Historical and literary analysis of writers in and about Maine. The emphasis will be on the literary quality of the best-known 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, especially a study of 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. (Spring, 1977) Cr 3.

#### **ENG 410 Independent Study in English**

Individual study programs as arranged with an instructor. Prerequisite: permission of instructor. Cr 1-3.

### **CPEN 294 Three Continental Humanists**

Hanna

A study of the *Divine Comedy*, *Gargantua and Pantagruel*, and *Don Quixote*. Beginning with Dante's medieval synthesis of the Greco-Roman and Judaeo-Christian traditions, the focus shifts to Rabelais' lusty, iconoclastic hunger for worldly experience, and finally to Cervantes' picaresque tale of faded Spanish glory and Renaissance skepticism. Oral reports, class discussions, brief critiques. Not offered 1976-1978. Cr 3.

### **ENG 371 Greek Tragedy and Comedy**

Hanna

Students will read the extant plays of Aeschylus, Sophocles, and Euripides—thirty-two tragedies in all—as well as six comedies by Aristophanes. An inquiry into dramatic ingredients: ritual and catharsis, myth and legend, meter and music, structure and method. The critical relevance of Aristotle's *Poetics*. Structural, stylistic, and thematic developments. Modern critical theories of interpretation. Prerequisite: the *Iliad* or the *Odyssey*. Oral reports, class discussions, short critiques. Cr 3.

### **ENG 388 Oriental and Oceanic**

#### **Masterpieces**

Coffin

The course introduces the best of Chinese lyrical poetry and the spiritual epics of India. Related material of interest will be used from Tibet and Oceania. Cr 3.

### **ENG 389 Oriental and Primitive**

#### **Masterpieces**

Coffin

The course starts with primitive literature of Black Africa and the American Indian and continues to early epic and other literature of Egypt, Babylonia, and Israel. (Spring, 1977) Cr 3.

#### **NOTE:**

Up to six hours of specific courses offered by such other CAS departments as Foreign Languages and Classics, History, Theatre, and Philosophy may be elected for English major credit.

## **VI—ENGLISH LITERATURE**

### **A—OLD AND MIDDLE: 600-1450**

#### **ENG 220 Old English (See Category IV)**

#### **ENG 221 Beowulf**

Coffin

This Old English poem is studied as the greatest literary work of the first 600 years of English Literature. Partially in modern English. Prerequisite: ENG 220. (Spring, 1978) Cr 3.

#### **ENG 223 Medieval Literature**

Extensive readings in major philosophical background texts and the literature of 14th century England exclusive of Chaucer. (Spring, 1977) Cr 3.

#### **ENG 224 Chaucer**

Burke, Weeks

Selections from the early poetry and intensive reading in the *Canterbury Tales*. Attention also given to the literary and historical background. Recommended for Juniors, Seniors, and English majors. Prerequisites: ENG 100 or 101, 120, and 121. (Fall) Cr 3.

#### **ENG 225 Medieval Epic and Romance**

Bernard

The background and development of the medieval epic and romance, including English, Germanic, French, and Italian works. (Spring, 1978) Cr 3.

### **B—RENAISSANCE: 1450-1660**

#### **ENG 231 16th Century Prose and Verse**

Bernard, Reuter

The prose and non-dramatic poetry of the 16th century. Major authors of the Tudor Age (1485-1603) in their cultural setting from Skelton to Donne. (Spring, 1978) Cr 3.

#### **ENG 232 Spenser**

Bernard

Readings in the works of Edmund Spenser with special emphasis on *The Faerie Queene*. Cr 3.

#### **ENG 242 Shakespeare I**

Vincent

A study of representative early and middle comedies, histories, and early tragedies. Reading and discussion of Elizabethan dramatic traditions, poetic modes, critical approaches, and current productions. (Every semester) Cr 3.

## **ENG 243 Shakespeare II**

Vincent

Continuation of Shakespeare I. A study of representative dark comedies, major tragedies, and dramatic romances. (Every semester) Cr 3.

## **ENG 244 Shakespeare Special Studies**

Reuter

A study of both traditional and transformed modes of perceiving (aesthetics) which result in allegorical elements in the plays of Shakespeare and his contemporaries. Selected readings of comedies, tragedies, chronicle histories, "problem" plays. A previous course in Shakespeare or the English Renaissance is recommended. (Fall, 1977) Cr 3.

## **ENG 246 British Drama to 1642**

Bernard, Reuter

Shakespeare's predecessors, contemporaries, and followers to 1642. (Annually, fall) Cr 3.

## **ENG 249 17th Century Prose and Poetry to 1660**

Baier, Reuter, Weeks

A study of major non-dramatic writers of the 17th century exclusive of Milton and Dryden. Included will be Bacon, Donne, Jonson, Hobbes, Burton, Herrick, Herbert, Vaughan, Marvell, Suckling, Lovelace, Crashaw, Carew, Browne. (Annually, fall) Cr 3.

## **ENG 250 Milton**

Baier, Reuter

Study of Milton's major poetry and selected prose with attention to critical and historical background. (Fall, 1976; Spring) Cr 3.

## **C—RESTORATION THROUGH 18TH CENTURY: 1660-1798**

### **ENG 262 Restoration and Early 18th Century Prose and Poetry**

Selkin, Weeks

An exploration of representative writings of the English Neo-classical period, including works by such writers as Dryden, Swift, Pope, Gay, Addison, and Steele. (Annually, fall) Cr 3.

### **ENG 263 Later 18th Century Prose and Poetry**

Selkin, Weeks

Johnson and Boswell and their circle, poetry from Smart and Collins to Burns and Blake, and other works of the period. (Spring 1977) Cr 3.

### **ENG 264 Swift**

Selkin

A study of Swift and his writings, both prose and poetry—imaginative, political, personal, satiric, and even "unprintable." Prerequisite: at least one previous course from those listed in Section VI, Group B or C. (Fall, 1976, evenings) Cr 3.

### **ENG 266 Restoration Drama**

Reuter, Selkin

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. (Spring, 1977) Cr 3.

### **ENG 267 The Development of the Novel**

Reuter

A study of the development of the novel from Christian and classical sources through early 18th century England with emphasis on Bunyan, Defoe, and Swift. (Spring, 1978) Cr 3.

### **ENG 268 The Earlier English Novel**

Bernard, Selkin, Weeks

The principal novelists from the beginnings to Sir Walter Scott. (Annually, Fall) Cr 3.

### **ENG 271 Masterpieces of English Satire**

Weeks

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 *Beggar's Opera*. (Fall, evening, 1977) Cr 3.



**ENG 273 The Poetry of Alexander Pope**  
Weeks

A close study of the most brilliant poet between Milton and Wordsworth. Pope dominated English poetry for half a century, but his most significant works often became lost in anthologies and period courses. Minimum readings will include a sampling of the pastorals, *Essay on Criticism*, *Rape of the Lock*, *Eloisa to Abelard*, selections from *Martin Scriblerus*, the Moral Essays, and the *Dunciad*. (Spring, 1978) Cr 3.

**D — ROMANTIC AND  
VICTORIAN: 1798-1900**

**ENG 281 Prose and Poetry of the  
Romantic Period**

Carner, Carper

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. (Spring 1977)

Cr 3.

**ENG 282 William Blake**

Carner

Examination of Blake's writings and visual art, attempting to develop a comprehensive understanding of Blake's system and intellectual contexts. (Fall 1976) Cr 3.

**ENG 286 Fiction of the Romantic Period**

Carner

The novels of Jane Austen; readings in Maturin, Peacock, Edgeworth, Lewis, Godwin, Mary Shelley, Scott. (Spring 1978)

Cr 3.

**ENG 291 Victorian Prose and Poetry**

Hanna

Selections from the poetry of Tennyson, Browning, Arnold, Swinburne, Clough, the Rossetti's, Meredith, Hardy, Hopkins and Housman. Critical and controversial essays by Macaulay, Carlyle, Arnold, Huxley, Newman, Mill, Ruskin, Morris, Pater, and Wilde. Victorian backgrounds: rich and poor, the Industrial Revolution, Utilitarianism, religious crises, democracy and culture, artistic alienation, and aestheticism. Oral reports and brief papers. (Spring 1978) Cr 3.

**ENG 293 From Pre-Raphaelitism to the  
Bloomsbury Group**

Wilson

This course will study the poetry, novels, paintings, and criticism of the Pre-Raphaelites, John Ruskin, William Morris, Art Nouveau, the Beardsley period, and the Bloomsbury Group. (Fall 1976) Cr 3.

**ENG 296 Tennyson and Browning**

Hanna

Extensive reading in the poetry of two major Victorian figures, Alfred Lord Tennyson and Robert Browning. Lectures and class discussions will involve several critical approaches—biographical, sociological, psychological, archetypal, symbolic, 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. (Fall 1977)

Cr 3.

**ENG 297 The Later English Novel**

Bernard

The principal novelists from Austen to Hardy. (Spring 1978) Cr 3.

**VII — AMERICAN LITERATURE:  
Colonial to 1900**

**ENG 342 American Literature I**

Jaques

A survey of American literature through the 18th and 19th centuries, with emphasis on the principal writers. (Fall, annually) Cr 3.

**ENG 344 The American Renaissance**

Jaques, O'Reilly, Slavick

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. (Annually, fall) Cr 3.

**ENG 345 Thoreau**

Jaques

An intensive critical study of the major works of Henry David Thoreau with attention to the social and literary backgrounds of his art. (Spring) Cr 3.

**ENG 348 The American Novel I**

Burke, Slavick

An historical survey of the American novel from Charles Brockden Brown to Henry James. In Professor Burke's sections a term paper is required for an honor grade, and prerequisites include: ENG 100 or 101, 120, and 121. (Fall 1976, evening) Cr 3.

**ENG 355 Hawthorne and Melville**

O'Reilly, Slavick

The chief works of two major figures in American literature. Emphasis will be on Melville. Some supplementary reading will be required. (Fall 1977) Cr 3.

**ENG 358 Twain and James**

Slavick

A study of representative works of two major American writers of the last half of the 19th century, with some attention to W. D. Howells, novelist, literary arbiter, and perhaps the only mutual friend of Twain and James. (Fall 1976) Cr 3.

## VIII — MODERN LITERATURE: 1900 to the Present

**ENG 299 Modern Poetry**

Rosen

A concentrated study of the poetry and critical prose of five major modern poets: W. H. Auden, T. S. Eliot, D. H. Lawrence, Wallace Stevens, and William Carlos Williams. (Fall 1977) Cr 3.

**ENG 302 20th Century British and American Poetry I**

O'Reilly

A close study of the major poets of the 20th century. Emphasis is usually upon Eliot, Yeats, Wallace Stevens, Hart Crane, Dylan Thomas, Robert Lowell, etc., although the poets chosen may vary with semester and instructor. Prerequisites have not been established, but this is not intended as an introductory course to poetry. (Annually, fall) Cr 3.

**ENG 303 20th Century British and American Poetry II**

O'Reilly

A continuation of English 302. First semester poets are not duplicated in II. (Annually, spring) Cr 3.

**ENG 305 D. H. Lawrence: The Search for Being**

Wilson

By studying the paintings, poetry, novels, letters, and critical writings of David Herbert Lawrence in chronological sequence, this course will explore his search for being. This search will involve the class in an examination of Lawrence's attitude to the unconscious life, myth, archetypes, and sexuality, his criticism of western civilization and the 20th century, and his turning to the mystical experience. It will also involve a study of his development of a language appropriate to this awareness and his acting out the dynamics of this view of the world in his art. Student evaluation will be based on small group discussions and three individual class essays. (Spring 1978)

Cr 3.

**ENG 306 Joyce's *Dubliners*, *Portrait*, and *Ulysses***

Hanna

A chapter-by-chapter exploration of *Ulysses*, the prestigious world novel by James Joyce. Each student will be assigned a different critical commentary so that divergent interpretations can be pooled in class. Prerequisite: a working knowledge of either *Dubliners* or *A Portrait of the Artist as A Young Man*. Round table sessions; regular oral reports, impromptu themes on key passages. (Fall 1976) Cr 3.

**ENG 307 Modern Short Story**

Rosen

Detailed consideration of from six to ten short story collections reflecting contemporary themes and narrative methods. Although selections will vary, the recent reading list has included Jorge Luis Borges, Franz Kafka, Anton Chekhov, James Joyce, Thomas Mann, 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 a weekly review of some critical article. Prerequisite: Junior class standing or permission of the instructor. (Fall 1976; Spring 1978) Cr 3.

**ENG 308 Modern Novel**

Rosen

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, Hermann Hesse, Andre Malraux, D. H. Lawrence, and James Joyce. Students are responsible for a term paper, a classroom report, and a weekly review of some critical article. Prerequisite: Junior class standing or permission of the instructor. (Spring 1977) Cr 3.

**ENG 309 The Southern Renaissance**

Slavick

The post-World War I flowering in Southern letters, with emphasis on the fiction of Heyward, Wolfe, Faulkner, Elizabeth Madox Roberts, Tate, Gordon, Porter, Agee, Warren, Welty, McCullers, Peter Taylor, Flannery O'Connor, and Walker Percy. (Fall 1977) Cr 3.

**ENG 310 The Fugitive Poets**

Burke

Intensive readings of the poetry of John Crowe Ransom, Donald Davidson, Allen Tate, and Robert Penn Warren. Recommended for upperclass students and English majors with a strong background in poetry. Attention to the literary situation of the twenties, especially Eliot and Pound. Frequent short papers and verbal participation required. Prerequisites: ENG 100 or 101, 120, and 121. (Spring 1978) Cr 3.

**ENG 311 Twentieth Century British Literature**

Wilson

Selected novels, plays, poetry from the late 19th century to the present. The course will study naturalism, impressionism, and symbolism, as well as the political and existential implications of British literature of the 20th century. (Fall 1977) Cr 3.

**ENG 326 Fitzgerald, Hemingway, Faulkner**

Slavick

Studies in the fiction of three 20th century American writers. (Spring 1978) Cr 3.

**ENG 343 American Literature II**

Jaques

A continuation of American Literature I. (Spring) Cr 3.

**ENG 349 The American Novel II**

Burke, Slavick

An historical survey of the American novel since 1900. In Professor Burke's sections a term paper is required for an honor grade, and there are these prerequisites: ENG 100 or 101, 120, and 121. (Spring 1977) Cr 3.

**IX — 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 99, 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: Frederick B. Rolfe, 517 Bonney, Portland.

Associate Professors Crochet (on leave Fall Semester, 1976), Dalvet, di Benedetto, Duclos, Lepelley, Rolfe, Ubans (on leave Spring Semester, 1977); Assistant Professor Carroll; Instructors Hernandez, Schwanauer.

### 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 251-300. French courses in this category may be credited toward the French major or minor if the work of the course, including papers and readings, is undertaken in French.

### II. BILINGUAL STUDENTS

Franco-American students and other bilingual students will find two French courses especially devised for them (although not exclusively). They are numbered FRE 181 and FRE 381.

### III. LANGUAGE PROGRAMS

The department offers programs in French, German, Classical Greek, Latin, and Spanish. Elementary courses (101-102) are for students who have never studied the language. Intermediate-level courses (131-132 for modern languages; 201-202 for the ancient languages) are for students with two successful years of high school language study. Students who do not feel prepared to enter the intermediate course in a modern language must begin with the review course numbered 103. Students whose aim is exclusively the ability to read a modern language should enroll in courses numbered 111-112, which are also a preparation for language tests required by graduate schools.

### IV. CONVERSATION

Besides the oral practice in the classroom, any student interested in acquiring the ability to speak fluently is invited 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. Students enrolled in language courses (101-132) may register for a supervised language practice twice a week in the laboratory; they will receive an extra credit for regular and active attendance. 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.

### V. FRENCH MAJOR

At the present time the department offers a major only in French. French majors must take a minimum of thirty credit-hours on the 200 level and above, of which twenty-one hours must be in literature courses. They are advised to take as early as possible FRE 231, FRE 251, FRE 252, and FRE 201. 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.

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.

## VI. FRENCH MAJOR AND MINOR FOR STUDENTS IN THE COLLEGE OF EDUCATION

More than any other students, future teachers of French need a very solid foundation in the language so that they will be ready to teach it with accuracy. The following programs are devised to assure that they reach such a goal:

### French Major 30 credits above the 200 level

Required courses:	Credit Hours
FRE 201 or 202 Composition I, II	3
FRE 203 or 204 Conversation I, II	3
FRE 231 or 232 Introduction to French Literature	3
FRE 205 Phonetics	3
FRE 251 or 252 French Civilization	3
FRE 401 or 402 Advanced French Grammar	3
	<hr/> 18 hours

Elective courses:

Any course listed above as required, beyond the 18 credits.

Students must also take the professional course FLED 301—**The Teaching of Foreign Languages.**

### French Minor 12 credits above the 200 level. (18 including FRE 131-132)

Required courses:	Credit Hours
FRE 201 or 202 Composition I, II	3
FRE 203 or 204 Conversation I, II	3
FRE 231 Introduction to French Literature	3
	<hr/> 9 hours

Elective courses:

FRE 205 Phonetics

FRE 232 Introduction to French Literature II

FRE 401 or 402 Advanced French Grammar

Any French Literature course on the 300 level

Students should also take the professional course FLED 301 — **The Teaching of Foreign Languages.**

## COURSE DESCRIPTIONS

### LITERATURE AND CIVILIZATION IN ENGLISH TRANSLATION

#### CLS 251 The Epic Hero in Ancient Literature

Duclos

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

#### CLS 252 The Tragic Hero in Ancient Literature

Duclos

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

#### CLS 255 The Golden Age of Greece

Duclos

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 256 Rome, from Republic to Empire Duclos

The literature, history, politics, philosophy, art, and architecture of Rome in the first century B.C. Lectures, discussion, papers, museum trip. Cr 3.

#### CLS 257 Greek Tragedy in Translation: Philosophy or Politics?

Carroll

This course examines a selection of Greek Tragedies in English translation from a literary, philosophical, and historical point of view. It involves students in developing a multi-level approach to a complex and often misunderstood art form. In keeping with this ultimate objective, several modern "tragedies" on Greek themes will be explored during the semester, to enhance

understandings of Classical drama and to demonstrate the "Classical elements" in contemporary forms. Cr 3.

### **FRE 251 French Civilization:**

#### **An Historical Approach**

Dalvet

Aspects of the society, institutions, arts, literature, and religion of France, from the origins to the end of the XIX century. Cr 3.

### **FRE 252 French Civilization:**

#### **Contemporary France**

Lepelley

Institutions, education, society, economy, politics of France. Requires reading knowledge of French, but no French is spoken in the classroom. Prerequisite: FRE 112. Cr 3.

### **FRE 261 Masterpieces of French Literature (in English Translation) I**

Dalvet

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 262 Masterpieces of French Literature (in English Translation) II**

Di Benedetto

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 263 Contemporary French Thinkers (in English Translation)**

Dalvet

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

### **FRE 264 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 268 18th Century Literature in France and England**

Di Benedetto

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.

## **CLASSICS: GREEK AND LATIN**

### **GRK 101 Elementary Greek I**

Duclos

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

### **GRK 102 Elementary Greek II**

Duclos

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

### **GRK 201 Intermediate Greek I**

Duclos

A study of Plato's *Apology*, *Crito* and selections from the *Phaedo*. Prerequisite: GRK 101 or equivalent. Cr 3.

### **GRK 202 Intermediate Greek II**

Carroll

A study of selected books from Homer's *Odyssey*. Cr 3.

### **LAT 101 Elementary Latin I**

Duclos

Fundamentals of the Latin language. Cr 3.

### **LAT 102 Elementary Latin II**

Duclos

Continuation of LAT 101. Cr 3.

### **LAT 201 Intermediate Latin I**

Duclos

Selected readings from masters of Latin prose and poetry. Prerequisite: LAT 101 or equivalent. Cr 3.

### **LAT 202 Intermediate Latin II**

Continuation of LAT 201. Cr 3.

### **LAT 231 Readings in Latin Literature I**

Duclos

Readings in the prose and poetry of the late Republic and Early Empire, with emphasis upon literary values. Cr 3.

### **LAT 232 Readings in Latin Literature II**

Duclos

Continuation of LAT 231. Cr 3.

## 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. If possible, register also for laboratory practice (one more credit).

Cr 3. (With lab, Cr 4.)

### **FRE 111 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 112 Readings in French**

Further practice of the skill acquired in FRE 111 through an accelerated reading of books on various topics (fiction, history, science, etc). Prerequisite: FRE 111. Cr 3.

### **FRE 131 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 132 Intermediate French II**

Continuation of FRE 131.

Cr 3. (With lab, Cr 4.)

### **FRE 181 French for Franco-Americans**

Rolfe

An analysis of the French language (grammar, vocabulary, pronunciation) spoken in French communities of New England. The course is also recommended for French majors who plan to teach in such communities.

Cr 3.

### **FRE 201 French Composition I**

Lepelley

Advanced study of the French language. Proficiency in writing, vocabulary development and idiomatic expression are the objectives of the course. Some free composition and translation. Cr 3.

### **FRE 202 French Composition II**

Lepelley

Continuation of FRE 201.

Cr 3.

### **FRE 203 French Conversation**

Lepelley

Intensive oral practice, expository reports, debates, class discussions. Prerequisite: FRE 132. Cr 3.

### **FRE 204 French Conversation II**

Lepelley

Continuation of FRE 203.

Cr 3.

### **FRE 205 French Phonetics**

Rolfe

A formal study of the French sound system and an initiation into phonetic transcription with practical and remedial work in pronunciation. Prerequisite: FRE 132 or equivalent. Cr 3.

### **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 204 or equivalent.

Cr 1.

### **FRE 208 The Practice of Conversation II**

Continuation of FRE 207.

Cr 1.

### **FRE 231 Introduction to French Literature I**

Dalvet

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 232 Introduction to French Literature II**

Dalvet

Continuation of FRE 231.

Cr 3.

**FRE 301 The French Novel Between the World Wars**

Crochet

Study of important novels by Gide, Proust, Mauriac, Malraux, Giono, and others. Student participation through group discussion and individual oral reports. Prerequisite: FRE 231. Cr 3.

**FRE 302 The French Novel from World War II to the Present**

Di Benedetto

Contemporary trends in the novel, with some attention to the short story. The post-war works of Camus and Sartre; novels by Robbe-Grillet, Beckett, Butor, Claude Simon, Marguerite Duras, and others. Prerequisite: FRE 231. Cr 3.

**FRE 303 French Theatre in the Twentieth Century**

Crochet

Plays by Giraudoux, Claudel, Montherlant, Genet, Ionesco. Prerequisite: FRE 231. Cr 3.

**FRE 304 Women in Contemporary French Literature**

Crochet

The course examines, through fictional and semi-autobiographical works, womanhood as seen by well-known women writers of the 20th century. Works to be studied are: *La Vagabonde*, Colette; *Memoires d'une jeune fille rangee*, Simone de Beauvoir; *Une Femme heureuse*, Celia Bertin; *Les Stances a Sophie*, Christiane Rochefort; *Journal d'une bourgeoise*, Genevieve Gennari; *Le Rempart des beguines*, Francoise Mallet-Jovis; *L'Astragale*, Albertine Sarrafin. Prerequisite: FRE 231. Cr 3.

**FRE 321 Drama and Poetry from Romanticism to Symbolism**

Lepelley

Lectures, readings, and discussion of plays and poetry by Hugo, Musset, Vigny, Baudelaire, Verlaine, Mallarme, Rimbaud, and other representative authors. Prerequisite: FRE 231. Cr 3.

**FRE 325 The XIXth Century Novel: Balzac and Stendhal**

Dalvet

Representative novels and short stories of Balzac, Stendhal, and contemporaries. Prerequisite: FRE 231. Cr 3.

**FRE 326 The XIXth Century Novel: Flaubert and Zola**

Lepelley

Representative novels of Flaubert, Zola, and contemporaries. Prerequisite: FRE 231. Cr 3.

**FRE 331 The Enlightenment in French Literature**

Di Benedetto

The use of literature for propagation of ideas in XVIIIth century France. Readings from Fontenelle, Montesquieu, Voltaire, Diderot, Rousseau. Prerequisite: FRE 231. Cr 3.

**FRE 332 The XVIIIth Century French Novel**

Dalvet

Readings from Prevost, Marivaux, Rousseau, Laclos, and others. Prerequisite: FRE 231. Cr 3.

**FRE 335 French Literature of the 17th Century until 1660**

Lepelley

Readings from Malherbe, Scarron, Descartes, Pascal, Corneille. Prerequisite: FRE 231. Cr 3.

**FRE 336 French Literature of the 17th Century: the Apogee of the Classical Age**

Lepelley

Readings from Mme. de la Fayette, Moliere, Racine, La Fontaine, La Bruyere, Boileau. Prerequisite: FRE 231. Cr 3.

**FRE 345 French Literature of the Medieval Period**

Lepelley

*Chansons de Geste*, *Romans courtois*; theatre, lyric, poetry. In modern French translation. Prerequisite: FRE 231. Cr 3.

**FRE 381 Franco-Canadian Literature**

Crochet

Readings from the younger generations of French Canadian novelists Gabrielle Roy, Jean-Guy Pilon, Rejean Ducharme, Marie-Claire Blais, Jacques Godbout. Selections of French Canadian poetry. Prerequisite: FRE 231. Cr 3.

**FRE 401 Advanced French Grammar I**

Rolfe

Designed to provide prospective teachers with an adequate foundation in French grammar. Prerequisite: FRE 202. Cr 3.



## **FRE 402 Advanced French Grammar II**

Rolfe

Continuation of FRE 401.

Cr 3.

## **FOREIGN LANGUAGE EDUCATION**

### **FLED 301 The Teaching of Foreign**

#### **Languages**

Rolfe

Principles and practices of teaching foreign languages at different learning levels. Survey of current trends and methods. Application of language-learning principles to classroom procedures. For seniors seeking certification in teaching foreign languages.

Cr 3.

## **GERMAN**

### **GMN 101 Elementary 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 Elementary 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 131. If possible, register also for laboratory practice (one more credit).

Cr 3. (With lab, Cr 4.)

### **GMN 111 Reading German I**

Schwanauer

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

Cr 3.

### **GMN 112 Reading German II**

Schwanauer

Further practice of the reading skill acquired in GMN 111. Recommended also as preparation for language tests required by graduate schools. Prerequisite: GMN 111 or instructor's permission.

Cr 3.

### **GMN 131 Intermediate German I**

Ubans

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 132 Intermediate German II**

Ubans

Continuation of GMN 131.

Cr 3. (With lab, Cr 4.)

### **GMN 201 Composition and Conversation in German I**

Ubans

Systematic training in correct pronunciation and usage, and in vocabulary building, with written and oral practice and work in the laboratory. Prerequisite: GMN 132 or equivalent.

Cr 3.

### **GMN 202 Composition and Conversation in German II**

Ubans

Continuation of GMN 201.

Cr 3.

### **GMN 231 Introduction to German Literature I**

Ubans

Reading and discussion of selected works representing the major literary movements from Enlightenment to Realism. Prerequisite: GMN 132 or GMN 112 or an equivalent reading ability of German.

Cr 3.

### **GMN 232 Introduction to German Literature II**

Ubans

Reading and discussion of selected works representing the major literary movements from Naturalism to the present. Prerequisite: GMN 132 or GMN 112 or an equivalent reading ability of German.

Cr 3.

## **SPANISH**

### **SPN 101 Elementary 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 Elementary 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 for a refresher course before entering SPN 131. If possible, register also for laboratory practice (one more credit).

Cr. 3 (With lab, Cr 4.)

### **SPN 131 Intermediate Spanish I**

Hernandez

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 132 Intermediate Spanish II**

Hernandez

Continuation of SPN 131.

Cr 3. (With lab, Cr 4.)

### **SPN 201 Composition and Conversation in Spanish I**

Hernandez

Advanced study of the Spanish language. Frequent practice of composition. Conversation and oral reports. Prerequisite: SPN 132 or equivalent.

Cr 3.

### **SPN 202 Composition and Conversation in Spanish II**

Hernandez

Continuation of SPN 201.

Cr 3.

### **SPN 231 Introduction to Spanish Literature I**

A survey of the important periods and trends in Spanish literature with reading of representative works. Prerequisite: SPN 132.

Cr 3.

### **SPN 232 Introduction to Spanish Literature II**

Continuation of SPN 231.

Cr 3.

## **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. Students are encouraged to register also for laboratory practice (one more credit).

Cr 3. (With lab, Cr 4.)

### **ITA 102 Beginning Italian II**

Continuation of ITA 101.

Cr 3. (With lab, Cr 4.)





## GEOGRAPHY-ANTHROPOLOGY

Chairman of Geography-Anthropology  
Department: Judith Tizon, 320-B Bailey,  
Gorham

Associate Professors French (on leave  
Academic Year 1976-77), Hodges; Assistant  
Professors Perlman, Tizon.

The Department of Geography-Anthro-  
pology offers the following programs:

- (1) A 39-hour major in Geography-  
Anthropology in the College of Arts  
and Sciences;
- (2) A 24-hour concentration of Geography  
courses as part of one of 3 alternative  
programs providing a 51 hour Social  
Science Area Major for Secondary  
Education students in the College of  
Education;
- (3) An 18-hour minor in Geography or  
Anthropology for all students in the  
School of Education, including Kin-  
dergarten-Primary, Elementary, and  
Secondary Education majors.

All students with majors or specific dis-  
cipline 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 require-  
ments. 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 in-  
volved, 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

- A. Students electing to concentrate in  
Anthropology must take ANY 101, 210,  
211, and GYAY 350 for a total of twelve  
(12) credit hours.
- B. Students electing to concentrate in  
Geography must take GEOG 101, 102,  
201, and GYAY 350 for a total of twelve  
(12) credit hours.

Beyond these basic requirements the  
student must set up a program of  
Geography/Anthropology courses to fulfill  
the thirty-nine (39) hour major with his/her  
advisor, and all courses in that program  
must be **previously approved** by the ad-  
visor.

### SOCIAL SCIENCES AREA MAJOR—College of Education With a 24-hour Concentration in Geography

<i>Required</i>	<i>Credit Hours</i>
HIST 101-102 Western Civilization I and II	6
HIST 131-132 U. S. History to 1877; U. S. History Since 1877	
or	
HIST 133-134 American History I and II	6
SOC 101 Introduction to Sociology	3
POL 101 Introduction to American Government	3

ANY 101	Man: The Cultural View	
or		
ANY 103	Origins of Man	3
ECON 101	Principles of Economics I	
and either		
ECON 102	Principles of Economics II	
or		
ECON 201	Current Economic Problems	6
SUBTOTAL OF NON-GEOGRAPHY COURSES		27
A total of 24 hours to be selected from the following Geography courses:		
GEOG 101	Man: The Spatial View	3
GEOG 104	Cartography	3
GEOG 106	The Local Environment	6
GEOG 201	Cultural Geography	3
GEOG 221	Spatial Organization	3
GEOG 302	Urban Geography	3
GEOG 303	Economic Geography	3
GEOG 304	Political Geography	3
GEOG 310	Geography of Asia	3
GEOG 311	Geography of North America	3
SUBTOTAL OF GEOGRAPHY COURSES		24
TOTAL REQUIREMENTS IN THE SOCIAL SCIENCES		51 hours

### GEOGRAPHY MINOR

#### For Kindergarten-Primary, Elementary or Secondary Education Students

<i>Required</i>		<i>Credit Hours</i>
GEOG 101	Man: The Spatial View	3
At least one course in regional geography from:		
GEOG 201	Cultural Geography	
GEOG 310	Geography of Asia	3
GEOG 311	Geography of North America	
12 hours of electives from the remaining geography courses		12
TOTAL REQUIREMENTS FOR A MINOR IN GEOGRAPHY		18

### OTHER OPTIONS

Students in the College of Education may also select the following options which are described below:

1. A 51-hour Social Science Area Major for Secondary Education Majors, with a 24-hour concentration in History courses.
2. A 51-hour Social Science Area Major for Secondary Education Majors, with a 27-hour concentration in Economics courses.
3. A 30-hour Social Science Area Major for Kindergarten-Primary or Elementary Education Majors.
4. An 18-hour Social Science Area Minor for Kindergarten-Primary Majors.

#### SOCIAL SCIENCES AREA MAJOR—College of Education With a 24-hour Concentration in History

<i>Required</i>		<i>Credit Hours</i>
HIST 101-102	Western Civilization I and II	6
HIST 131-132	U. S. History to 1877; U. S. History Since 1877	
or		
HIST 133-134	American History I and II	6
Any additional 12 hours in HIST courses		12

SOC 101	Introduction to Sociology	3
POL 101	Introduction to American Government	3
ECON 101	Principles of Economics I and either	
ECON 102	Principles of Economics II	
or		
ECON 201	Current Economic Problems	6
Total of 6 hours from any combination of the following:		
GEOG 101	Man: The Spatial View	
GEOG 201	Cultural Geography	
ANY 101	Man: The Cultural View	
ANY 103	Origins of Man	6
SUBTOTAL OF SPECIFICALLY REQUIRED COURSES		42
<b>ELECTIVES</b>		
A minimum of 9 credit-hours in any HIST, SOC, POL, ANY, ECON, GEOG courses		9
TOTAL REQUIREMENTS IN THE SOCIAL SCIENCES		51

**SOCIAL SCIENCES AREA MAJOR**  
**With a 27-hour Concentration in Economics**

<i>Required</i>	<i>Credit Hours</i>
HIST 101-102 Western Civilization	6
HIST 131-132 U. S. History to 1877; U. S. History Since 1877 or	
HIST 133-134 American History I and II	6
GEOG 101 Man: The Spatial View	3
SOC 101 Introduction to Sociology	3
POL 101 Introduction to American Government	3
ANY 101 Man: The Cultural View	3
ECON 101-102 Principles of Economics or	
ECON 150-201 Elementary Economics and Current Economic Problems	6
ECON 350 Comparative Economic Systems	3
ECED 300 Economic Concepts and Resource Materials for Educators	3
Additional Electives from Economics	15
TOTAL REQUIREMENTS IN THE SOCIAL SCIENCES	51

(Practice teaching should be arranged to provide practice in the teaching of economics classes, if possible.)

**SOCIAL SCIENCES MAJOR**  
**For Kindergarten-Primary or Elementary Education Students**

A minimum of 30 credit-hours of HIST, SOC, POL, ANY, ECON, GEOG courses.

**SOCIAL SCIENCES MINOR**  
**For Kindergarten-Primary 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 the CAS. The Geography/Anthropology Department offers GYAY 100 Museum Aide for one half 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 two-fold:

- 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 (unpaid) 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 1/2

#### **GYAY 200 Problem Solving and Methodology**

This course introduces techniques of learning, thinking and doing basic research

in the social sciences, humanities, and science. Traditional and new techniques of acquiring knowledge and thinking will be covered, including survey methods taken from logic, statistics, scientific method, psychology, mathematics, and graphics. The student will learn methods of organizing and presenting research findings.

Prerequisite: ANY 101, GEOG 101 or permission of instructor. Cr 3.

#### **GYAY 250-251 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 the Geography/Anthropology; GYAY 200; Problem Solving and Methodology. Cr 1-6.

### **Anthropology**

#### **ANY 101 Man: The Cultural View**

The nature of culture. A survey of such human institutions as social organization, kinship, political and economic systems, religion and values with cross-cultural examples; a brief history of anthropology and the growth of cultural relativism; modern approaches to the study of culture.

Cr 3.

### **ANY 103 Origins of Man**

This course considers the uniqueness of the human species through an examination of its biological and cultural beginnings. The processes of human evolution and variation are approached from the perspective of physical anthropology, and human culture is explored through the archaeological record from the earliest evidence to the rise of urban civilization. Cr 3.

### **ANY 201 South American Culture History**

This course deals with pre-Columbian South American cultures, from the earliest signs of population to the Spanish conquest. The rise and fall of "high" civilizations (Chavin, Huari, Inca) as well as regional patterns (coast, highlands, tropical forest) will be reviewed. Various theories on the development, interconnection, and disappearance of cultures will be analyzed, along with topical problems such as the origin and spread of agriculture and the evidence for trans-Pacific and trans-Atlantic contact. (Offered every other fall)

Cr 3.

### **ANY 203 North American Archaeology**

An examination of the stages of cultural development from the earliest Paleo-Indian populations to the European invasion. Emphasis is placed upon culture as a system of adaptation and anthropological culture sequences in the Southwest, Southeast, Plains and the Northeast are studied in detail. Prerequisite: ANY 103 or permission. Cr 3.

### **ANY 204 North American Indians**

An ethnographic study of Indian cultures at the time of contact by Europeans. Emphasis will be placed upon selected societies from the native culture areas north of Mexico. This comparative analysis examines the variety of cultural systems that existed prior to the European invasion, and the social disorientation that followed. No prerequisites. Cr 3.

### **ANY 205 Archaeology Field School**

This course offers an introduction to the method of site surveying, involving an investigation of the evolution of the natural and cultural environment. The experience will culminate in archaeological investigation of selected sites in coastal Maine. The course will integrate the disciplines of

Geography and Anthropology as they relate to field investigations. It will emphasize the advantages of practicing what you learn as you experience it. Cr 6.

### **ANY 206 Field Material Analysis**

Students will be introduced to the analysis of material culture 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. Cr 3.

### **ANY 210 Culture Theory I**

This course is an historical survey of cultural evolutionary theories in Anthropology. The ideas of the early evolutionists—Darwin, Morgan, etc.—will be presented and compared with those of modern cultural-ecological and energy study proponents. Although Culture Theory I and II deal with matter chronologically, they are organized so that students may take them in either order, or take only one. Prerequisite: ANY 101. Cr 3.

### **ANY 211 Culture Theory II**

This course follows *Culture Theory I* in chronological order. The major emphasis in this course will be the examination of social anthropological orientations such as functionalism, structuralism, and ethnohistory, as they have developed in Anthropology. Prerequisite: ANY 101. Cr 3.

### **ANY 212 Economic Anthropology**

The course is designed to offer students with a minimal background in Anthropology an understanding of the range of economic systems existing in the world today tribal, peasant and state-level economics and the general process which creates this diversity. A specific theme will be the analysis of supply and demand concepts and whether they do or do not apply to other cultures. Cr 3.

### **ANY 300 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.



### **ANY 301 Culture Contact and Culture Change**

This course reviews the factors involved in different types of culture change (e.g., acculturation, autonomous "evolution"), typologies of culture-contact situation, the part played by "cultural brokers," and the effects of different kinds of contact. The arguments for and against applied anthropology with respect to culture change will be explored, as well as the analysis and definitions of exploitation, as complex technologically advanced societies come into contact with small, homogeneous "primitive" cultures. Both forces favoring and those working against assimilation will be considered. Prerequisite: ANY 101. Cr 3.

### **ANY 305 Method and Theory in Archaeology**

Using archaeological data, Archaeological Anthropology tests a wide range of hypotheses about society. The introduction of the hypothesis testing approach into archaeology is the result of recent expansions in theoretical orientations and methodological strengths. The literature discussing those theoretical and methodological developments will be critically evaluated by the student. Prerequisite: ANY 101 or ANY 104. Cr 3.

**ANY 314 Magic, Religion, and Witchcraft**  
Belief in the supernatural as a cultural universal; definition and function of religion cross-culturally; comparison of "primitive" beliefs with those of Judao-Christian tradition; discussion of the origin and evolution of religious systems; para-psychological studies and problems. Prerequisite: ANY 101 or 102 or permission. Cr 3.

### **ANY 351 Man in the Northeast**

A detailed study of the sequence of aboriginal cultures in the American Northeast with special reference to central New England. It correlates directly with archaeological research being conducted by the department of Geography-Anthropology and emphasizes the classification and interpretation of archaeological data. Lab required. Prerequisites: ANY 101 or 102 or permission of instructor. Cr 4.

### **ANY 382 Introduction to Linguistics** (cross-listed with ENG 382)

A general introduction to modern linguistic science, including studies in the development of language, phonology, morphology, the dictionary, and varieties of English and usage. Also examined are the various grammatical philosophies and their methods—traditional, structural, and transformational. Cr 3.

### **ANY 384 Structural Linguistics** (cross-listed with ENG 384)

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

### **ANY 385 Structural Linguistics and Culture** (cross-listed with ENG 385)

The course analyzes the language and culture (art, religion, poetry) of pre-literate societies, particularly the American Indian. Cr 3.

## **Geography**

### **GEOG 101 Man: The Spatial View**

Surveys the field of geography and presents an introduction to the several approaches to the discipline. Geographic theory, methods of investigation, and concepts are examined. Physical and cultural factors are interrelated to present the man and environment relationship from the point of view of the geographer. The course is a prerequisite for most upper level Geography courses, and for all majors. (Offered every semester) 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. Cr 3.

### **GEOG 104 Cartography**

Fletcher

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, cartographic tools, and air photograph interpretation will be included. A laboratory fee will be required. Cr 3.

#### **GEOG 106 The Local Environment**

Students apply various inference and analysis techniques in the field to assess the nature of human settlement in the local area. Amerind, Colonial, and 19th Century sites are investigated with an emphasis on landscape change through time. Expect to wear boots and get your hands dirty. Scheduling must be flexible and a full day is normal. A lab fee is required to offset transportation costs. Cr 6.

#### **GEOG 201 Cultural Geography**

A concept-oriented approach to human geography that explores both natural and cultural influences upon man's use of the land and the varied spatial patterns that reflect the manner of occupation. Environmental quality, perception of environment, the dynamics of process, and new methods in the teaching of geography are among the areas receiving special emphasis. Prerequisite: GEOG 101. (Offered every semester) Cr 3.

#### **GEOG 202 Geomorphology**

(cross-listed with GEOL 202)

Novak

Description and interpretation of landform development in terms of geologic structure, process, and stage. Field trips. Laboratory. Prerequisite: GEOL 201 or permission. (Offered every spring of even years.) Cr 3.

#### **GEOG 204 Advanced Cartography**

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 portion of the semester will be devoted to basic air photo interpretation and mapping land use from aerial photographs. A laboratory fee is required. Prerequisite: GEOG 104 or permission of instructor. Cr 3.

#### **GEOG 209 Planning for the Future:**

##### **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. GYAY 200 is recommended. Cr 3.

#### **GEOG 210 Geography Theory**

This course explores the development of geography as a spatial science from determinism to behaviorism, from description to prognostication. Required of all concentrating in Geography. Prerequisite: GEOG 101, or 102. Cr 3.

#### **GEOG 221 Spatial Organization**

Basic concepts of geography are approached within a spatial-organizational format. This involves concepts of spatial efficiency, the geometry of space, geographic predictive approaches, as well as computer simulations and applications. Cr 3.

#### **GEOG 300 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.

### **GEOG 302 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. (Offered every fall) Cr 3.

### **GEOG 303 Economic Geography**

Economic Geography presents a topical approach to economic activities in the world. Primary, secondary, and tertiary economic activities are examined. The major objectives are (1) to present the pattern of economic activities on a world scale and (2) to present explanations for the location of economic activities. Prerequisite: GEOG 101. (Offered every spring) 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: GEOG 101. (Offered every spring) Cr 3.

### **GEOG 310 Geography of Asia**

The course examines the regions of South Asia, Southeast 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: GEOG 101. (Offered every fall) Cr 3.

### **GEOG 311 Geography of North America**

French  
An open-ended approach, ranging from theory to the empirical, that deals with progress and problems in North America as seen from the spatial point of view. Prerequisite: GEOG 101. Cr 3.



## HISTORY

Chairman of History Department: Eugene Schleh, 300-B Bailey, Gorham.

Professors Cole, Emerson, Hunt, Schleh, York, Young; Associate Professors Albee, Bibber, Connick, Dietrich, Eastman (on leave Spring Semester, 1977), Feig, Ventresco, Whitmore; Assistant Professors Ganzevoort, Padula (on leave Fall Semester, 1976).

The courses offered by the history department are intended to provide broad acquaintance with the past experience of human society. The history curriculum offers the student an opportunity to participate in and investigate the procedures and methods of historical study through lectures, discussion, research, and the writing of history; or, combined with the necessary academic credits in education, the program will provide certification for teaching at the secondary level.

It is hoped that students from many departments, schools, and colleges will take history courses in which they are interested. For students wishing to major in history, as

part of the B.A. program or as part of a Secondary Education program, the following minimum program has been structured. Students will probably take more elective courses than the minimum, and should distribute them among the three areas (American, European, and non-Western).

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 to outstanding history majors. Any student interested in applying to this program may contact the History Department Chairman for details.

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 IN ARTS AND SCIENCES OR SECONDARY EDUCATION

	<i>Credit hours</i>
HIST 101 and 102 Western Civilization I and II (3 credits each semester) to be taken as a two-semester sequence	6
HIST 131 and 132 U.S. History to 1877 and U.S. History Since 1877 Choice of two courses from the introductory sequences in non-western history listed below:	6
HIST 161 and 162 Introduction to African History to Partition and Introduction to African History since Partition	6
or	
HIST 171 and 172 Traditional East Asia and Modern East Asia	
or	
HIST 181 and 182 Latin America I and II	3
HIST 200 Methodology in History	18
Other History Courses	18
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.

It is strongly recommended that history majors, especially those expecting to do graduate study, acquire proficiency in a foreign language.

### **MINOR IN HISTORY FOR STUDENTS IN SECONDARY EDUCATION**

A student in Secondary Education may elect to minor in History. A minimum of 18 credit-hours, including HIST 101-102 and HIST 131-132 and elective history courses, is needed for this minor. Details of this program may be obtained from the student's faculty advisor.

### **ACADEMIC MAJORS AND MINORS IN KINDERGARTEN-PRIMARY AND ELEMENTARY EDUCATION**

Students in Kindergarten-Primary or Elementary Education in the College of Education may complete 30 hours of History in an approved program for an academic major or 18 approved hours for an academic minor. HIST 101-102 and HIST 131-132 are required courses in either the Academic Major or Academic Minor Program.

### **COURSE DESCRIPTIONS**

#### **HIST 101 Western Civilization I**

An introduction to the intellectual and political heritage of Western man from prehistoric times to the late 17th century. Divergent concepts of the theories and writing of history as a systematic explanation of past events form an integral part of the course. The interaction between society and technology, especially the social impact of technological change, is analyzed throughout the course. Cr 3.

#### **HIST 102 Western Civilization II**

A survey of the experiences, ideas, and major creative works of Western man from the 17th century to recent times. The course interweaves political, intellectual, social,

and economic developments. It considers international relations, the changing power balance among leading states, and contacts with non-Western civilizations. The interaction between society and technology, especially the social impact of technological change, is analyzed throughout the course. 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 team-taught survey of United States history which examines institutional development and change in major areas of American society and culture before 1900 by means of lecture case studies, a variety of paperbound readings, films, slides, music, and small-group discussions. (This course may not be used to fulfill requirements for Major, Minor or Concentration as of September, 1976). Cr 3.

#### **\*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, though class procedures differ. Credit will be given for one or the other (i.e., not for both HIST 131 and HIST 133 or for both HIST 132 and HIST 134.)**

### **HIST 161 Introduction to African History to Partition**

Schleh

Survey of African history from early migrations to the beginning of the Colonial era. Approach is both regional, stressing selected countries representative of their regions, and topical, cutting across political boundaries (e.g. — states of the Sudan, city states of East Africa), role of Islam, conduct and impact of the slave trade, exploration and partition. Cr 3.

### **HIST 162 Introduction to African History Since Partition**

Schleh

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 171 Traditional East Asia**

Bibber, Dietrich

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**

Bibber, Dietrich

China and Japan since about 1700, emphasizing contrasting moves toward modernization in two traditional societies. Cr 3.

### **HIST 181 Latin America I**

Padula

The Spanish and Portuguese colonial empires in America from their establishment to their achievement of independence in the early 19th century. Cr 3.

### **HIST 182 Latin America II**

Padula

A survey of modern Latin America beginning with the Latin American wars of independence in the early 19th century and extending to the present. Cr 3.

### **HIST 195 History of Canada I**

Ganzevoort

Canada's history from the earliest settlements in New France to 1867. Emphasis on the evolution of Canada within the British Empire-Commonwealth, relations with the United States, and on the background of contemporary constitutional, economic, and cultural problems. Cr 3.

### **HIST 196 History of Canada II**

Ganzevoort

Canada's history since 1867. Continuation of HIST 195. Cr 3.

### **HIST 198 Revolution in the 20th Century:**

**Russia, China, Cuba**

Albee, Dietrich, Padula

A study of revolution in the 20th Century through a comparative analysis of the Russian, Chinese, and Cuban experiences. The course attempts to afford the student an understanding of conditions under the old regime, a familiarity with the revolutionary events themselves and a knowledge of the effects of revolution upon the three societies. No prerequisites. Offered once every two years. Cr 3.

### **HIST 200 Methodology in History**

Connick, Eastman

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. (Offered both Fall and Spring semesters in Day sessions.) 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. Cr 3.

### **HIST 232 Ancient History II**

A continuation of HIST 231 concentrating upon an examination of ancient Rome. Cr 3.

### **HIST 235 Medieval Civilization**

Cole

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. Cr 3.

### **HIST 241 Renaissance, Reformation and Absolutism**

Ventresco

A study of the transformation of European society from the world of the Renaissance

to the crisis of the Reformation and to the rise of the State system Prerequisite: HIST 101. Cr 3.

### **HIST 242 French Revolution and Napoleon**

Young

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 in 19th Century Europe**

Ventresco

An intensive survey of the history of Europe's major powers and their international relations. Major topics also included are liberalism, nationalism, socialism, and imperialism. Intellectual and cultural developments are stressed. Prerequisite: HIST 102. Cr 3.

### **HIST 244 20th Century Europe**

Albee, Ventresco, Young

An intensive survey of European developments in the twentieth 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 European Diplomacy of Two World Wars**

Albee

A study of the origins, diplomacy, and peace settlements of the First and Second World Wars. The questions of inevitability and responsibility, the nature of wartime diplomacy, and the problems of peace-

making are among the subjects to be considered. Prerequisite: HIST 102 or HIST 244, or permission. Cr 3.

### **HIST 261 History of England**

Cole, Ventresco

A survey of England from Anglo-Saxon times to the beginning of the twentieth century, with emphasis on the nature of English monarchy, the development of political institutions, and evolving constitutionalism. Particular attention is given to broad movements such as the Reformation, the Industrial Revolution, and Imperialism. Prerequisite: HIST 101 and 102. Cr 3.

### **HIST 263 Britain in the 20th Century**

Albee

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**

Ventresco

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. Cr 3.

### **HIST 266 Italy Since World War I**

Ventresco

A continuation of Italian History from World War I to contemporary times. The political aspects will stress the rise of the Fascist State, the fall of Mussolini, and the post-war era. The literature of such figures as Pirandello, Svevo, Levi, and Moravia will be examined; as well as Italian historical writings. Prerequisites: HIST 101 and 102. Cr 3.

### **HIST 272 Germany Since 1870**

Young

A study of the German Empire, its dissolution in 1918, the Weimar Republic, Hitler's Third Reich, Germany in World War II, and divided Germany since 1945. Includes a study of cultural and social

factors which help explain Germany's role in the modern world. Prerequisite: HIST 102 or permission. Cr 3.

### **HIST 273 History, Literature, and Drama of Nazi Germany**

Feig

A combined study of the literature, drama, films, history, and internal institutions relating to Hitler Germany for a comprehensive social/political/historical analysis of the Third Reich. Prerequisite: Sophomore standing except with permission. Cr 3.

### **HIST 274 The Holocaust**

Feig

A case-study seminar of the process and conditions which led to the harassment, expulsion and extermination of the European Jews during World War II. Based in history, the course draws heavily upon literature, diaries, personal accounts, and deals extensively with the methodology and bibliography of various social science disciplines. Prerequisite: One course in European history. No freshmen. Cr 3.

### **HIST 275 Russia to 1861**

Young

Political, social, cultural and economic history of the Russian people to the emancipation of the serfs. Surveys geographic factors, influence of Byzantine civilization, the impact of invasions, and the development of Russia's unique social, cultural and political institutions and problems. Prerequisite: One history survey or permission. Cr 3.

### **HIST 276 Russia Since 1861**

Young

Political, social, cultural, and economic history from serf emancipation to today. The course deals with Tsarist autocracy, pressures for reform and weaknesses in imperial Russia, role of the intelligentsia, and revolutionary parties, the Bolshevik Revolution and the history of Communist Russia since 1917. Prerequisite: One history survey or permission. Cr 3.

### **HIST 301 American Colonial History**

Ganzevoort

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. Prerequisites: HIST 131 and 132. Cr 3.

### **HIST 302 The American Revolution**

Ganzevoort

The Revolution is placed in the context of a maturing society in conflict with the imperial power of England. Beginning in 1750, the course traces the growing confrontation which led to civil war. Emphasis is placed upon societal attitudes and responses to the conflict and the resolutions reached in the Constitution. Prerequisites: HIST 131 and 132. Cr 3.

### **HIST 305 Hamilton and Jefferson**

Hunt

Special emphasis on Hamilton and Jefferson to include: biographical information, the Jefferson-Hamilton political dichotomy, and its subsequent influence. Following this, a general analysis of social, intellectual, political, economic, and diplomatic problems facing the "New Nation" between 1789-1815 is presented. Prerequisites: HIST 131 or permission. Cr 3.

### **HIST 306 The Age of Jackson, 1815-1850**

Hunt

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. Prerequisites: HIST 131 or permission. Cr 3.

### **HIST 307 Civil War and Reconstruction**

Emerson, Hunt

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. Cr 3.



**HIST 308 The Gilded Age in America,  
1869-1898**

Hunt

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. Cr3.

**HIST 309 Early 20th Century America,  
1898-1938**

Emerson

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. Cr3.

**HIST 310 America Since 1938**

Eastman, Emerson

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. Cr3.

**HIST 321 History of Maine**

York

A survey of Maine's social, economic, and political life from primitive times to the present. Cr3.

**HIST 323 History of the South**

Whitmore

A survey of the social, political, economic, intellectual, cultural, and racial elements of the American South from the colonial period to the present. Prerequisite: HIST 131 and 132. Cr3.

**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. Cr3.

**HIST 331 History of Black Americans**

Emerson, Whitmore

The experience of black people within American society from the colonial period to the present is treated through their interaction with the nation's social, political, cultural, and economic institutions. Major topics include the African heritage, components of slavery, abolitionism, segregation, programs of race advancement, and the modern search for identity. Prerequisite: HIST 131 or permission. Cr3.

**HIST 333 The American Home**

Bibber

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. A project of some variety will be required. Prerequisite: Six hours of U.S. History. Cr3.

**HIST 335 American Urban History**

Whitmore

The American city is surveyed in regard to this history of its 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. Cr3.

**HIST 337 American Economic and  
Business History, 1607-1860**

Eastman

Economic and business developments in the United States from the first settlements to the Civil War with coverage of the British mercantile system, the colonial economy, the Transportation Revolution, the Southern plantation system, and the beginnings of American industrialization; and with in-depth analysis of selected topics of special interest. Prerequisite: HIST 131 or permission. Cr3.

**HIST 338 American Economic and Business History Since 1860**

Eastman

Economic and business developments in the United States from the Civil War to the present with coverage of 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; and with in-depth analysis of selected topics of special interest. Prerequisites: HIST 131 and 132 or permission. Cr 3.

**HIST 339 American Labor in the Twentieth Century**

Emerson

A chronological examination of the efforts of American corporate society. Topics will include the emergence of the AFL, labor radicalism, labor and immigration, the nature and role of labor leadership, racketeering labor and the New Deal, and the rise of Big Labor. The focus will be on organized labor but attention will also be given to white-collar workers, blacks, migrants, and other fringe groups. Emphasis will be placed on labor theory. Prerequisite: HIST 132 or permission. Cr 3.

**HIST 341 American Social and Intellectual History I**

Emerson, Whitmore

An analysis of the evolution of American religious, political, economic, social, and scientific thought from the colonial period to 1865 emphasizes major principles, assumptions, and values; the relation of American thought to class structure, ethnic and racial associations, mobility, and immigration; and its relation to contemporary intellectual patterns in the western world.

Cr 3.

**HIST 342 American Social and Intellectual History II**

Emerson, Whitmore

A continuation of HIST 341 from 1865 to the present. Cr 3.

**HIST 343 Diplomatic History of the United States I**

Bibber

This course covers the development of key United States foreign policies from the

Revolution to the Spanish-American War. Prerequisite: HIST 131. Cr 3.

**HIST 344 Diplomatic History of the United States II**

Bibber

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. Cr 3.

**HIST 345 American Character**

Emerson

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 travellers 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. Cr 3.

**HIST 347 Viewpoints in American History**

Bibber

A seminar involving discussions of selected topics in United States history, with emphasis on varying interpretations of trends and events. Students will read and analyze both traditional and more recent views, noting changes in frames of reference, methodology, and general approach. Prerequisite: 12 hours of U.S. history. Cr 3.

**HIST 348 A History of Religion in**

America

Whitmore

A study of religion in American society from the colonial era to the present examines theological patterns, forms of religious organization, major figures and movements in the criticism and/or advocacy of religion, and the religious contribution to the American heritage. Prerequisites: HIST 131 and 132 or permission. Cr 3.

**HIST 351 Canada and the U.S.**

Ganzevoort

This is a seminar course designed to examine past and present relationships between the two most important powers on the American continent. It will examine various aspects of this relationship from a social, political, and economic viewpoint.

Prerequisites: Six hours of either Canadian History survey, United States History or a combination of the two. Cr 3.

### **HIST 352 Canadian-American Migration Movements**

This course will attempt to give a broad historical survey of immigration to Canada and the United States from 1608 to 1960. Various aspects of the immigration movements such as the push and pull factors, immigration policy, nativism, and the accomplishments of various immigrant groups will be examined. The migrations between the United States and Canada will also be considered. An attempt will be made to assess the impact of the immigrant on Canadian and American society, politically, socially, and economically. Students will be encouraged to examine different aspects of immigration either by a research paper or an attempt to secure oral histories of immigrants to Maine. It is hoped that the ethnic community of Portland can supply speakers and that much of the required reading can be in the form of immigrant literature. Cr 3.

### **HIST 361 The United States and Africa** Schleh

A history of United States' interests in and relations with Africa from the early seventeenth century to the present. Areas covered include commerce, social and humanitarian contacts, America's role in the exploration of Africa, and diplomacy. Prerequisite: 9 hours of history or permission. Cr 3.

### **HIST 362 Contemporary Africa** Schleh

Seminar to examine major interdisciplinary elements in today's Africa including: literature and the arts, social change, development and adaption in African politics, economic development, race relations, and international politics. Cr 3.

### **HIST 371 The United States and Asia** Bibber

A history of the United States' interests in the Far East from 1789 to the 1960's, 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**

Dietrich

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 development 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**

Dietrich

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**

Dietrich

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 Intellectual History**

Dietrich

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**

Padula

A survey of United States' participation in Latin American affairs from the recognition of independence and the enunciation

of the Monroe Doctrine to the Good Neighbor policy and the present day. Prerequisite: HIST 182 recommended. Cr 3.

### **HIST 382 Social Revolution in Latin**

#### **America**

Padula

A comparative history of social revolution in Latin America with emphasis on the Mexican, Argentine, Cuban, and Chilean revolutions. Substantial student participation will be expected; substantial reading for each weekly session will be required.

Cr 3.

### **HIST 383 A Cultural History of Latin**

#### **America**

Padula

This course attempts to divine the principal characteristics of the Latin American character and society through a reading of classic works of fiction, poetry and autobiography by leading Latin American authors.

Cr 3.

### **HIST 386 Modern War and Its Images**

Schleh

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 with particular personal experiences, academic interest or both.

Cr 3.

### **HIST 392 Problems in Contemporary**

#### **History**

An analysis in depth 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.

Cr 3.

### **HIST 394 Selected Topics in History**

An analysis in depth 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.

Cr 3.

### **HIST 410 The European Revolutionary**

#### **Tradition Since 1789**

Young

A seminar analyzing modern European revolutions, revolutionary theory, revolutionary leadership, and the dynamics of revolution, including the role of the revolutionary crowd. Open to seniors and others by permission. Prerequisite: At least six hours of European history or equivalent in unusual cases.

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 on reading and discussing books and articles with applicability to secondary education programs. Prerequisite: six hours of European history or permission.

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 on reading and discussing books and articles with applicability to secondary education programs. Prerequisite: twelve hours of U.S. history or permission.

Cr 3.

### **HIST 495 Historiography**

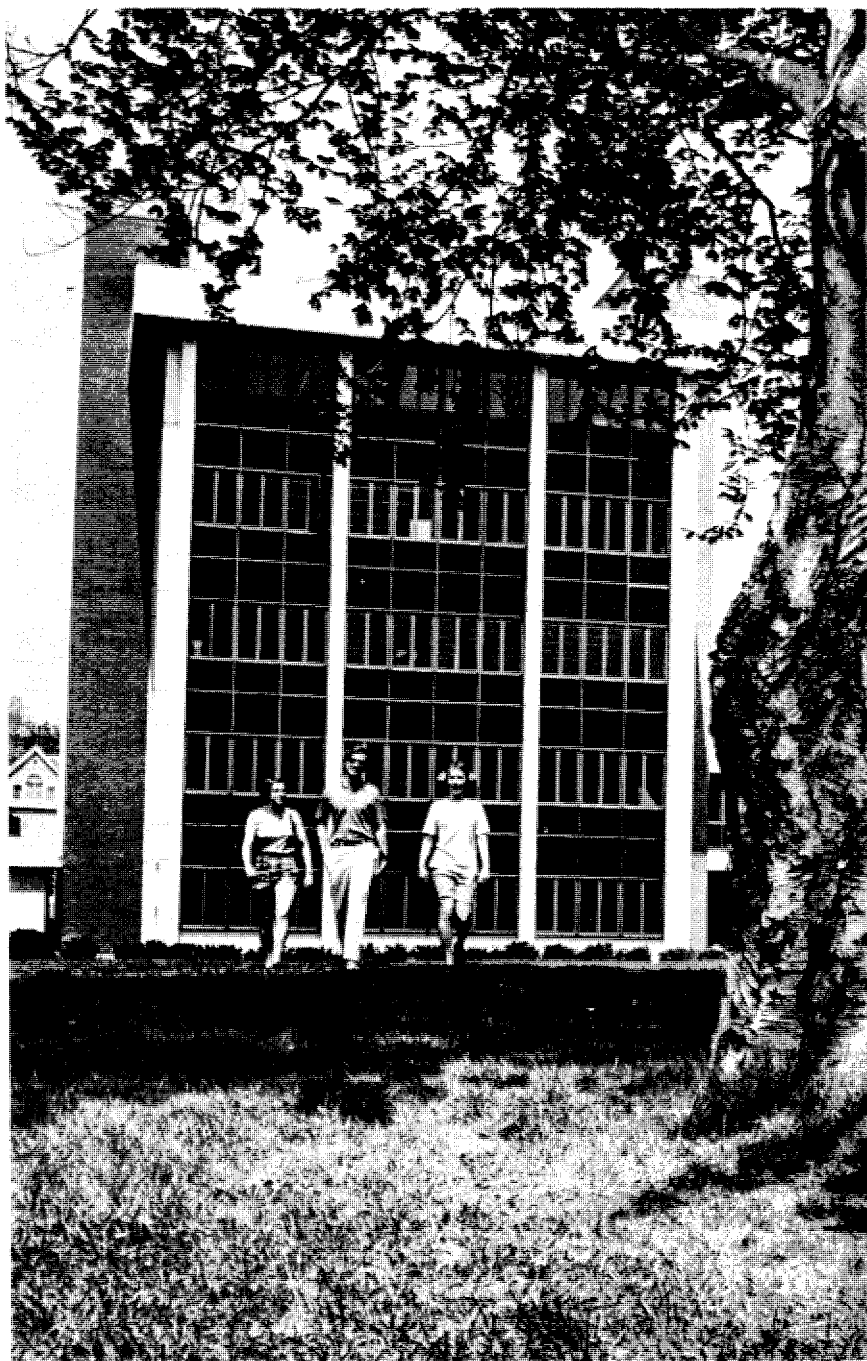
A survey of the principal schools of historical writing and of their products, with a detailed analysis of the philosophical principles, specific purposes, and research and writing techniques of selected major historians. Prerequisite: Senior history majors only.

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.



## MATHEMATICS AND COMPUTER SCIENCE

Chairman of Mathematics and Computer Science: Lincoln T. Fish, Jr., 115-C Bailey, Gorham.

Professors Estes, Fish, Guay, P. Rogers; Associate Professors Brown, Chabot, Foster, Kratzer, MacDonald, Mainville, Moulton; Assistant Professors Aiuppa (on leave Academic Year 1976-77), Heath, Irish, Soychak (on leave Spring Semester 1977).

The Department of Mathematics and Computer Science offers a four-year program leading to a baccalaureate degree in mathematics, and provides courses to meet the requirements of a number of undergraduate and graduate programs. Students may follow a traditional mathematics program as outlined in Option 1 below, or they may choose to concentrate in applied mathematics or computer science as described in Options 2 and 3.

The Department offers programs of Cooperative Education in both Mathematics and Computer Science. Students interested in Cooperative Education/Field Experience may obtain a brochure which gives further details on the program from the Mathematics and Computer Science Department offices.

Mathematics majors intending to pursue graduate work should choose Option 1 and are urged to take Real Analysis I and II, Abstract Algebra, Topology, and one year of French, German, or Russian. Those interested in teaching at the secondary level are encouraged to 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 second digit 5 or greater with a grade-point average of at least 2.0 in these courses and have successfully completed MsEd 345.

Those majors intending to enter industry or other applied fields should consider the applied mathematics or computer-science option. Majors who plan to prepare for the actuarial profession should be certain to include in their programs Linear Algebra, Probability and Statistics I and II, Numerical Analysis, and the appropriate courses in the School of Business.

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.

### I. REQUIREMENTS FOR ALL MATHEMATICS MAJORS

- A. MS 152 Calculus A, MS 153 Calculus B, MS 252 Calculus C, MS 290 Foundations, and CS 160 Fortran Programming I. These courses should normally be completed by the end of the sophomore year.
- B. 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.
- C. Each student must also complete one of the three options below.
  1. Option for Mathematics Majors Intending to Pursue Graduate Work.
    - 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

(3) Applied Mathematics:

MS 350 Differential Equations  
MS 362 Probability & Statistics I  
MS 361 Numerical Analysis

(4) Geometry: MS 370 College Geometry  
MS 372 Non-Euclidean Geometry  
MS 371 Projective Geometry

Any exceptions to the above requirements must be approved by the Department.

- b) Successful completion of at least nine additional hours of MS courses with second digit 5 or greater, not to include courses with numbers ending in 99 without written permission of the Department.
2. Option for Mathematics Majors Who Intend to Specialize in the Area of Applied Mathematics.
- a) Successful completion of MS 350 Differential Equations, MS 362 Probability & Statistics I, MS 363 Probability & 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 492 Graph Theory and Finite Combinatorics, MS 366 Linear Programming, MS 361 Numerical Analysis, MS 461 Introduction to Operations Research.
- c) Successful completion of at least 18 hours in allied disciplines which utilize mathematical techniques. The particular program of courses must be approved in writing by the Department.
3. Option for Mathematics Majors Who Intend to Specialize in the Area of Computer Science.
- a) Successful completion of five of the following ten courses: MS 350 Differential Equations, MS 354 Topics in Advanced Calculus, MS 355 Complex Analysis, MS 361 Numerical Analysis, MS 362 Probability & Statistics I, MS 363 Probability & Statistics II, 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 of the following courses: CS 169 Computer Organization and Programming, CS 260 Fortran Programming II, CS 269 Machine and Assembler Language, MS 361 Numerical Analysis, if not taken in (a) above, CS 368 Data Structures, CS 369 Systems Programming, CS 497 Independent Study in Computer Science (at least three credits).

## II. REQUIREMENTS FOR MATHEMATICS MINOR AND EDUCATION MAJORS

- A. A minor in mathematics may be obtained by successfully completing 18 hours of mathematics courses in which the second digit is 5 or greater.
- B. Kindergarten-Primary 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.
- C. Kindergarten-Primary 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.

## III. RECOMMENDED COURSES FOR NON-MAJORS

Students who desire an introductory course to satisfy the Area 3 general education requirement should consider MS 104 and MS 105. 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.)  
 MS 264 Statistical Methods for Research.

## COURSE DESCRIPTIONS COMPUTER SCIENCE

### **CS 100 Introduction to Computer Science**

A general course designed for students not majoring in mathematics. Topics will include: history of data processing, terminology, 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 Fortran Programming I**

A study of programming techniques and applications using the Fortran language. Cr 3.

### **CS 169 Computer Organization and Programming**

The purpose of this course is to introduce the student to the structure and organization of digital computers and the use of assembly language programming systems. 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 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 260 Fortran Programming II**

A continuation of CS 160. A further study of programming in the Fortran language. Prerequisite: CS 160. Cr 3.

### **CS 269 Machine and Assembler Language**

Software organization, a study of assembler and macro language capabilities, assembler language coding, loader and execution tasks. Comparison with interpretive processing. Introduction to program and data structures. Prerequisite: CS 169. Cr 3.

### **CS 368 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 260. Cr 3.

### **CS 369 Systems Programming**

Operating systems: batch processing, multi-programming and multi-processor systems, time sharing, scheduling, storage allocation, input-output. File system organization and management. Remote and hierarchical job control. Prerequisite: CS 269. 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. Prerequisite: Junior or Senior standing and permission of the department chairman and instructor. Cr 1-3.

### **CS ED 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. The student's work is ordinarily in a related field, and the work experiences increase in difficulty and responsibility as the student progresses through the sequence of courses. The experiences are approved on a case-by-case



basis by the department. Evaluation is done through a written report done by the student together with the employer and a faculty supervisor. Prerequisites: Open to qualified students, subject to availability of suitable jobs. Cr 1-5.

## MATHEMATICS

Note that MS 10 and MS 11 carry credit only toward the Associate Degree.

### MS 10 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 11 Intermediate Algebra

A continuation of MS 10. Prerequisite: MS 10 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. Prerequisites: 2 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: 2 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 I

The first course of a two-course sequence designed for students not majoring in mathematics. The emphasis will be on applications of mathematics as well as the basic concepts encountered in mathematics. The topics presented may be interdisciplinary in nature. Prerequisite: Two years of high school algebra and one year of geometry. Cr 3.

### MS 105 Topics in Mathematics II

This course has the same format as MS 104 and should be a continuation of it. However, since the topics need not be related, MS 105 may be taken independently of MS 104. Prerequisite: Permission of the instructor if topics are a continuation. Consult the Mathematics Department for topics offered each semester. Prerequisite: 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. Prerequisite: Two years 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 Mathematics for Elementary Teachers I**

This is the first course in a basic two-course sequence of special interest to prospective primary and elementary teachers. The course places major emphasis on an intuitive approach to the structure of the real number system. Topics covered: sets and logic, system of whole numbers, integers, rationals, numeration systems, elementary number theory. Restricted to students majoring in elementary or primary education. Prerequisites: Two years of high-school algebra and one year of geometry.

Cr 3.

### **MS 132 Mathematics for Elementary Teachers II**

Continuation of MS 131. Topics covered: decimals and real numbers, mathematical systems of modern mathematics, probability, elementary statistics, informal geometry, algebra concepts. Prerequisite: MS 131 or permission of instructor.

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. Prerequisite: two years of high-school algebra and one year geometry. 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. Prerequisite: 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 152.

Cr 4.

### **MS211 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**

A course as recommended by the Committee on the Undergraduate Program, Mathematical Association of America, to follow the two-course sequence on number systems; emphasis on generalization and abstraction, algebraic properties, linear equations and inequalities in two variables, quadratics, systems of equations and inequalities, modular arithmetic, group, field, complex numbers, functions. Prerequisite: MS 131 or permission of instructor.

Cr 3.

### **MS 232 Geometry for Elementary Teachers**

To provide the prospective elementary teacher with the common core of geometric knowledge; congruence, measurement, parallelism, and similarity; presented at first intuitively, then as part of a deductive system; applications. Follows recommendations of CUPM, Mathematical Association of America. Prerequisite: MS 131 or permission of instructor.

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 232.

Cr 3.

### **MS 235 History of Mathematics for Elementary Teachers**

A history of certain topics in number theory, geometry, and elementary algebra. Prerequisite: MS 132 or permission of instructor.

Cr 3.

### **MS252 Calculus C**

Multivariate calculus and vector calculus. Prerequisite: MS 153.

Cr 4.

### **MS 264 Statistical Methods for Research**

An applied methods course. Selected topics from analysis of variance and covariance, regression, correlation, non-parametric methods, factor analysis. The computer

system is utilized, but programming is not necessary. Prerequisite: MS 120 or equivalent. Cr 3.

### **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: 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: two years of high-school algebra. 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. Prerequisite: MS 252, and 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. Prerequisite: MS 252 and 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 361 Numerical Analysis**

A study of the theory and application of computational algorithms for interpolation, equation solving, matrix methods, integration; error analysis. Prerequisite: MS 252, CS 160, and permission of the instructor. Cr 3.

### **MS 362 Probability and Statistics I**

Probability laws, random variables and distributions, correlation, regression, estimation and hypothesis testing. Prerequisite: MS 252. Cr 3.

### **MS 363 Probability and Statistics II**

Continuation of MS 362. Sampling, hypothesis testing; non-parametric methods, analysis of variance, decision theory, topics in random processes. Prerequisite: MS 362. 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: MS 290. Cr 3.

### **MS 370 College Geometry**

Selected topics from Euclidean geometry. Prerequisite: MS 290. Cr 3.

### **MS 371 Projective Geometry**

Synthetic and analytic projective geometry, including finite projective planes. Prerequisite: MS 290. Cr 3.

### **MS 372 Non-Euclidean Geometry**

A development of one or more of the non-Euclidean geometries. Prerequisite: MS 290. Cr 3.

### **MS 380 Linear Algebra**

An introduction to the theory of vector spaces and linear transformations. Prerequisite: MS 290. Cr 3.

**MS 382 Abstract Algebra**

Algebraic structures, such as groups, rings, integral domains, and fields. Prerequisite: MS 290. Cr 3.

**MS 390 History of Mathematics**

The development of mathematics from ancient to modern times. Prerequisites: MS 152 and 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, and Projective Geometry, Graphs, and Sets and Logic. Prerequisite: 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. Prerequisite: 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. Prerequisite: 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 the management and 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. Prerequisite: 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 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: MS 290. Cr 3.

**MS 495 Mathematical Problem Solving Techniques**

Study of a variety of techniques used in the solution of verbal problems from algebra and calculus, geometric problems, non-verbal problems, and the use of analogies. Special emphasis will be given to Polya's Method. Prerequisite: Calculus or the permission of the instructor. 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. Prerequisite: 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.

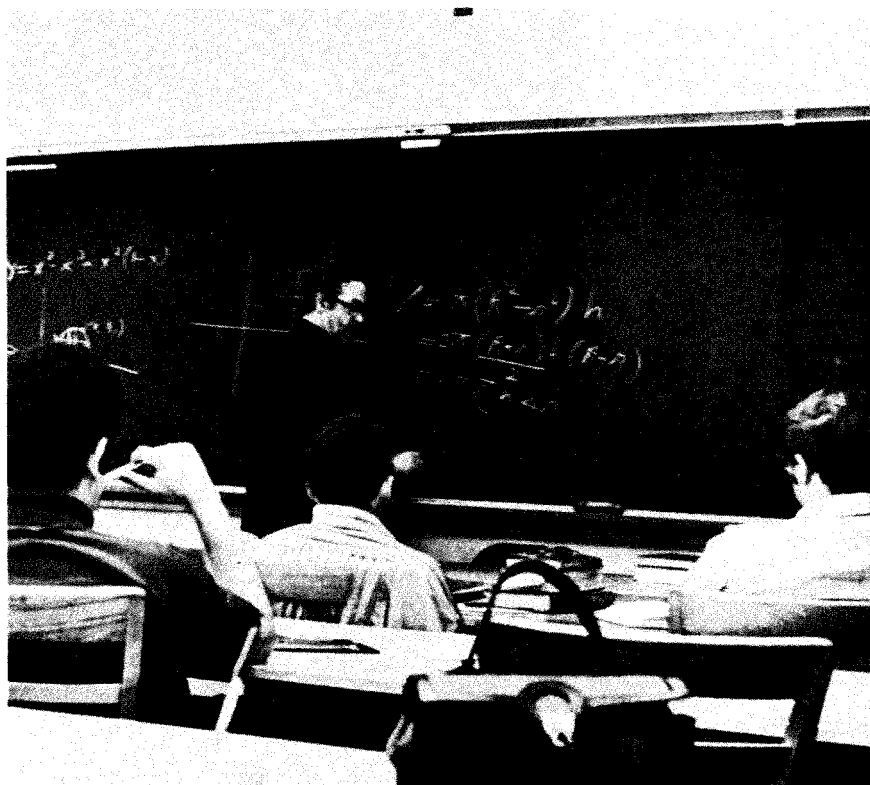
**MSCE 200-201, 300-301, 400-401****Cooperative Education in Mathematics**

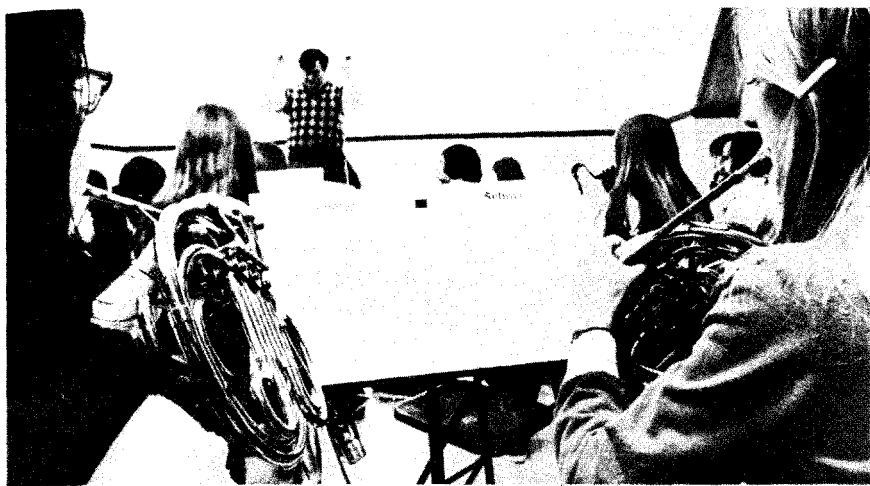
The student has the opportunity to relate academic knowledge to practical experience in a job situation. The University makes arrangements with certain institutions, businesses, and industries to employ qualified students for specific jobs for a set time period. The student's work is ordinarily in a 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 through a written report done by the student together 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. Prerequisite: junior or senior standing. Cr 3.





## MUSIC

Chairman of Music Department: Harold F. Brown, 206-A Corthell, Gorham.

Professors Bowder, H. Brown, Chamberland; Associate Professors R. Cole, Heel, Puopolo;  
Part-time Instructors Aldrich, Barker, Garland, Glover, Tainter, Torrey, Trefry.

### APPLIED MUSIC INSTRUCTORS

Piano: Donna Aldrich  
Marjorie Arnold  
Nina Bailey  
Naydene Bowder  
Thomas Bucci  
Ronald Cole  
Ocy Downs  
Robert Glover  
Elizabeth Volstad  
Richard Roberts

Voice: Harold Brown  
Gerard Chamberland  
Jeannette Chamberland  
Stewart Shuster  
Johanna von Tiling

Organ: Malcolm Cass  
John Fay

Violin: Deirdre Clark  
Rebecca Garland  
Stephen Kecskemethy  
Ronald Lantz

Viola: Julia Mosely  
Cello: Katherine Graffam  
Paul Ross

Bass: Katherine Graffam

Flute: Harold Brown  
Frances Drinker

Oboe: Roberta Barker  
Clinton Graffam

Clarinet: Burchard Tainter  
Dean Rhodes

Saxophone: Joseph LaFlamme  
Burchard Tainter  
Robert Rabassa

Bassoon: Donald Curry

Trumpet: Calvin Torrey

French Horn: James Bennett  
Robert Miller

Katherine Schmidt  
Trombone: James Bennett  
Donald Doane

Tuba: James Bennett

Percussion: George Bookataub  
Donna Trefry

Harp: Deidre Carr

Classical Guitar: 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 either in Education (Bachelor of Science in Music Education) or in Arts and Sciences (Bachelor of Arts in Music). In addition, a minor in music is offered for students majoring in Elementary Education.

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. For most teachers the fee is \$60.00 for one credit or \$120.00 for two credits.

Interested students should make inquiry at the Music Department office. This fee 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, College Board and SAT 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.

## **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) Modern Philosophies of Education.

In addition to the regular curriculum, all music education majors will meet the following requirements:

- 1. Participation in at least two recitals a year, and presentation of a solo recital in the senior year (or junior year with special permission).
- 2. Fulfillment of minimum requirements in both voice and piano, regardless of major instrument.
- 3. Participation in at least one instrumental and one vocal organization each semester. Non-instrumentalists will be in two vocal groups.
- 4. Successful completion of seven semesters of major applied lessons.
- 5. Successful completion of recital class in each semester when registered for major applied lessons.

### **Piano Proficiency Requirement**

Each student must successfully complete the piano-proficiency requirement before the semester of 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 semesters, the student will continue applied piano for no credit and at the student's 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 on or after September 1, 1974, 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:

Minimum requirements for Voice Minors:

- A. Principles of
  1. Posture
  2. Breathing
  3. Tone production
  4. Articulation
- B. Repertoire will include music of all periods, specifically:
  - 6 Italian songs
  - 6 German songs
  - 6 French songs
  - 12 English songs

At least half of the above selections will be memorized.

- C. Voice proficiency will include a demonstration of principles of singing outlined above. Students will be prepared to perform from memory one selection from each language category.

If proficiency is not passed in two years, students will continue study at their own expense.

### **Professional Education**

All Music Education majors are required to take the following professional education courses:

- EDU 324 Student Teaching (12 credits)
- EDU 350 Modern Philosophies of Ed. (3 credits)
- EDPY Any EDPY course (3 credits)

In addition to the basic 18 credit-hours in professional education, Music Education majors will



complete the following:

MUED 220	Wood wind Class
MUED 221	Brass Class
MUED 222	Percussion Class
MUED 320 and 321	String Class
MUED 322 and 323	Music Education Methods
MUED 420	Music Administration and Supervision

Student teaching is the culmination of a comprehensive pre-professional, 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.

### 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 140, 141, 240, 241, 340, 341, 440, 441	Instrumental and Vocal Conducting Ensembles
MUS 142, 143, 242, 243, 342, 343, 442, 443	Recital Class
MUS 150, 151, 250, 251, 350, 351, 450, 451	Applied Music, Minor
MUS 160, 161, 260, 261, 360, 361, 460, 461	Applied Music, Major
MUS 344	Instrumental Conducting
MUS 345	Vocal Conducting
MUS 420	Orchestration

### MUSIC EDUCATION CURRICULUM

	<i>Freshman Year</i>	<i>Credit Hours</i>
MUS 120 and 121	History of Music I and II	6
MUS 130 and 131	Theory I and II	6
MUS 132 and 133	Solfeggio I and II	2
MUS 140 and 141	Instrumental and Vocal Conducting Ensemble	1
MUS 142 and 143	Recital Class	1
MUS 150 and 151	Applied Music, Minor	2
MUS 160 and 161	Applied Music, Major	4
	Ensembles	2
	General Education Requirements	9
	Physical Education	1
		<hr/> 34

### *Sophomore Year*

MUS 220 and 221	History of Music III and IV	6
MUS 230 and 231	Theory III and IV	6
MUS 232 and 233	Solfeggio III and IV	2
MUS 240 and 241	Instrumental and Vocal Conducting Ensemble	1
MUS 242 and 243	Recital Class	1
MUS 250 and 251	Applied Music, Minor	2
MUS 260 and 261	Applied Music, Major	4
MUED 220	Woodwind Class	2
MUED 221	Brass Class	2
MUED 222	Percussion Class	1
	Ensembles	2
	General Education Requirements	<u>6</u>
		35

### *Junior Year*

MUS 344	Instrumental Conducting	2
MUS 345	Vocal Conducting	2
MUS 340 and 341	Instrumental and Vocal Conducting Ensemble	1
MUS 342 and 343	Recital Class	1
MUS 350 and 351	Applied Music, Minor	2
MUS 360 and 361	Applied Music, Major	4
MUED 320 and 321	String Class	4
MUED 322 and 323	Music Education Methods	6
	Ensembles	2
	General Education Requirements	<u>9</u>
		33

### *Senior Year*

MUS 420	Orchestration	3
MUS 440 or 441	Instrumental or Vocal Conducting Ensemble	½
MUS 442 or 443	Recital Class	½
MUS 450 or 451	Applied Music, Minor	1
MUS 460 or 461	Applied Music, Major	2
MUED 420	Music Administration and Supervision	3
	Ensembles	1
	General Education Requirements	6
EDU 324	Student Teaching	12
EDU 350	Modern Philosophies of Education	3
EDPY	Any EDPY course	<u>3</u>
		35

The Music Education Curriculum requires a total of 137 hours.

## 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.

	<i>Credit Hours</i>
UMPG General Education Requirements	30
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	4
MUS 332 Counterpoint	2
Applied Music	4
Ensembles	4
Music Electives	9
The Bachelor of Arts in Music Curriculum requires a total of 124 hours:	<u>124</u>

\*"Language proficiency" means completion of a second year of a language. This may be bypassed by examination for no academic credit.

Retention in the program will be based on all University requirements plus maintenance of a grade-point average of 2.5 in music subjects.

## 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:

	<i>Credit Hours</i>
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 200 Music for the Classroom Teacher	3
MUED 322 Elementary Music Methods and Materials	3
MUS 150, 151 Applied Music	2
Ensembles	2
	<u>24</u>

The Minor in Music Education Program requires a total of 24 hours.

## 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 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.

#### **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. 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. 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. 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.

#### **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.

### MUSIC PERFORMANCE GROUPS OPEN TO ALL STUDENTS

#### **MUS 400 Chamber Orchestra**

Bowder Cr 0.5.

#### **MUS 401 The Gorham Chorale** Chamberland

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**

Bowder Cr 0.5.

#### **MUS 403 A Cappella Choir**

A chorus of fifty members, open to all students by audition. At least one concert is presented on campus each semester, and usually several off campus. Cr 0.5.

#### **MUS 404 Brass Ensemble**

Cr 0.5.

#### **MUS 405 The Chamber Singers**

Chamberland  
A select group of twenty-five singers specializing in music from the Renaissance to the Contemporary. Extensive touring throughout the state. Cr 0.5.

### 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. For music majors or minors. Others only with permission of 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. For music majors or minors. Others only with permission of instructor. Cr 3.

**MUS 130 Music Theory I**

Puopolo

Major and minor scales; intervals, triads, and chord connection; cadences; harmonization of soprano and bass lines utilizing primary triads. For music majors or minors. Others only with permission of instructor. Cr 3.

**MUS 131 Music Theory II**

Puopolo

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. For music majors or minors. Others only with permission of instructor. Two one-hour meetings per week. 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. For music majors or minors. Others only with permission of 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 the twentieth century American and European music and their relationship to tradition. For music majors or minors. Others only with permission of instructor. Cr 3.

**MUS 230 Music Theory III**

Bowder

Diatonic seventh chords; modulation; expansion of non-harmonic 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. For music majors or minors. Others only with permission of instructor. 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. Two one-hour meetings per week. For music majors or minors. Others only with permission of instructor. 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 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. For music majors or minors. Others only with permission of instructor. Cr 2.

**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. For music majors or minors. Others only with permission of instructor. Cr 2.

### **MUS 332 Counterpoint**

Bowder

Tonal counterpoint. The process of invention and fugue as exemplified in the music of the Baroque era. Prerequisite: Theory III. For music majors or minors. Others only with permission of instructor.

Cr 2.

### **MUS 420 Orchestration**

Bowder

A study of the nature of the various instruments. Practice in scoring for instrumental combinations, orchestra, and band. For music majors and minors. Others only with permission of instructor.

Cr 3.

### **MUS 460 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. For music majors or minors. Others only with permission of instructor.

Cr 1-3.

### **Music Performance Courses**

#### **MUS 140 Instrumental Ensemble for Freshmen**

Bowder

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 freshmen.

Cr 0.5.

#### **MUS 141 Vocal Ensemble for Freshmen**

Chamberland

Emphasizing singing technique and interpretation and 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 142 Recital Class for Freshmen I**

Brown

Performance in major field, stage deportment, and evaluation of performances. Restricted to freshmen.

Cr 0.5.

#### **MUS 143 Recital Class for Freshmen II**

Brown

A continuation of MUS 142. Cr 0.5.

#### **MUS 150 Applied Music for Freshmen I**

May be taken in piano, voice, organ 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 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 240 Instrumental Ensemble for Sophomores**

Bowder

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 Ensemble 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 242 Recital Class for Sophomores I**

Brown

Performance in major field, stage deportment, and evaluation of performances. Restricted to sophomores.

Cr 0.5.

#### **MUS 243 Recital Class for Sophomores II**

Brown

A continuation of MUS 242. Cr 0.5.

**MUS 250 Applied Music for Sophomores I**  
May be taken in piano, voice, organ 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 260 Applied Music for Sophomores I**  
May be taken in piano, voice, organ 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 340 Instrumental Ensemble for Juniors**

Bowder  
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 Ensemble 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 342 Recital Class for Juniors I**  
Brown  
Performance in major field, stage deportment, and evaluation of performances. Restricted to juniors. Cr 0.5.

**MUS 343 Recital Class for Juniors II**  
Brown  
A continuation of MUS 342. Cr 0.5.

**MUS 344 Instrumental Conducting**  
Bowder  
Practical conducting experiences; score reading, basic beat patterns, and interpretation. 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. Cr 2.

**MUS 350 Applied Music for Juniors I**  
May be taken in piano, voice, organ 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 juniors. Cr 1.

**MUS 351 Applied Music for Juniors II**  
A continuation of MUS 350. Cr 1.

**MUS 360 Applied Music for Juniors I**  
May be taken in piano, voice, organ 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 I**  
A continuation of MUS 360. Cr 2.

**MUS 440 Instrumental Ensemble for Seniors**  
Bowder  
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 441 Vocal Ensemble for Seniors**  
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 442 Recital Class for Seniors I**

Brown

Performance in major field, stage deportment, and evaluation of performances. Restricted to seniors. Cr 0.5.

**MUS 443 Recital Class for Seniors II**

Brown

A continuation of MUS 442. Cr 0.5.

**MUS 450 Applied Music for Seniors I**

May be taken in piano, voice, organ 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 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.

**Music Education****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.

**MUED 220 Woodwind Class**

Tainter

Methods of teaching woodwind instruments; practical experience on various woodwinds; and elements of transposition. Cr 2.

**MUED 221 Brass Class**

Torrey

Methods of teaching brass instruments including practical experience on the various instruments; elements of transposition. Cr 3.

**MUED 222 Percussion Class**

Trefry

Practical experience on and methods of teaching percussion instruments. Cr 1.

**MUED 320 String Class—Violin and Viola**

Garland

Class methods and materials in teaching violin and viola. Fundamentals of violin and viola, including bowing, tone production, intonation, and fingering techniques extended into the third position. Cr 2.

**MUED 321 String Class—Ensemble**

String ensemble methods and materials for beginning strings. Fundamentals of violin, viola, cello, and string bass. Rudiments of fingering, bowing, and tone production. Cr 2.

**MUED 322 Elementary Music Methods and Materials**

Heel

Study of methods and materials in present elementary school music education, including those of Kodaly and Orff. Cr 3.

**MUED 323 Secondary Music Methods and Materials**

Heel

Study of approved methods and materials of music education in junior and senior high schools. Continuation of MUED 322. Cr 3.

**MUED 420 Music Administration and Supervision**

Heel

Designed to present an integrated picture of philosophies of administration, and to resolve problems encountered in student teaching. Cr 3.





## PHILOSOPHY

Chairman of Philosophy Department: William Joseph Gavin, 220 Science, Portland.

Professor F. Schwanauer; Associate Professors Gavin, Grange (on leave Academic Year 1976-77); Assistant Professors Gross, Conway.

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 History of Philosophy courses from the following seven 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.

## COURSE DESCRIPTIONS

### **PLY 101 Introduction to Philosophy: Man and His Will**

Schwanauer

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**

Gavin

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**

Grange

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. The writings of some philosophers will be critically examined by way of illustration. 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 109 Introduction to Philosophy:****Law and Anarchy**

Gross

This course will introduce the student to the philosophical issues of Political Life in the West from the period of Greek Culture to the Present. Texts will be chosen from the works of Plato, Aristotle, Machiavelli, the Social Contract Theorists, Hegel, Marx, and the early Anarchists. The aim of the course is to provide the firm ground necessary to deal with political issues of our time.

Cr 3.

**PLY 200 Symbolic Logic**

Schwanauer

Techniques of modern deductive logic; properties of formal systems; logical implications and paradoxes of language. Prerequisite: any PLY 100-level course.

Cr 3.

**PLY 210 Ethical Theories**

Schwanauer

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 220 Aesthetics**

Gavin

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**

Grange

Analysis of the nature of religious experience, knowledge, and language. Special attention given to problems, classical and contemporary, exhibited in religious ex-

perience, 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**

Gross

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**

Gavin

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. Prerequisite: any PLY 100-level course.

Cr 3.

**PLY 260 Philosophy of Law**

Gross

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.

Cr 3.

**PLY 290 Problems of Philosophy**

Consideration of selected problems or systems of philosophical significance, including general problems of metaphysics, epistemology, axiology, specialized areas, etc. Prerequisite: any PLY 100-level course.

Cr 3.

In the Fall of 1976 the following PLY 290 courses will be offered: PLY 290-01 Philosophy of Language; PLY 290-02 Conway.

**PLY 310 History of Ancient Philosophy**

Gavin

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**

Grange

The merger of the philosophic with the religious stream; ideas of Augustine, Thomas Aquinas, and others critically examined; determining cultural factors explored. Prerequisite: a PLY 100 course, PLY 310. Cr 3.

**PLY 330 History of Early Modern****Philosophy**

Gross

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**

Gross

Development of German idealism; emergence of social and scientific philosophies; contributions of Kant, Hegel, Schopenhauer, Nietzsche, Feuerbach, and others. Prerequisite: any PLY 100-level course.

Cr 3.

**PLY 350 American Philosophy**

Gavin

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**

Grange

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**

Schwanauer

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**

Gavin

These numbers are used to indicate seminar courses dealing with a specified 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 300-level courses in Philosophy, or permission of the instructor. Cr 3.

In the Fall of 1976 the following seminar will be offered: John Dewey. Tentative schedule for Spring, 1977, includes a seminar in Marx and another in Kant, Professor Schwanauer, Professor Gross, respectively.

**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: senior standing, advanced standing as a philosophy major, and permission of the department. Cr 3.

## POLITICAL SCIENCE

Chairman of Political Science Department:  
Irving D. Fisher, 38 Chamberlain Street,  
Portland.

Professor Peirce; Associate Professors  
Fisher, Maiman, Roberts, Woshinsky;  
Assistant Professors Coogan, Temple.

### REQUIREMENTS FOR THE MAJOR IN POLITICAL SCIENCE

- a. each major must complete a minimum of 36 hours in the Department of which six must be POL 101 and 102.
- 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

Comparative Political Systems  
POL 235  
POL 236  
POL 237  
POL 238  
POL 240  
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 103  
POL 210  
POL 213  
POL 233  
POL 251  
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). In unusual cases students may, with prior permission of the department, substitute independent study for a Seminar.

Upper-level Political Science courses all require either POL 101 or 102 or the permission of the instructor. Note that POL 101 is **not** a prerequisite for 102.

In special cases the requirement of POL 101 may be waived if the student successfully completes an examination administered by the Department. Students with appropriate prior experience may, in special cases, be granted credit for one or more of the internship courses (POL 353, 354, 355). 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.

Political Science majors are encouraged to take advantage of a variety of internship opportunities as part of their program.

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, 354, 355,  
Independent Study, at least one  
Seminar.

Yearly: (Fall) POL 233, 283, 289, 306.  
(Spring) POL 284, 290, 307, 353.  
(Either semester) POL 103, 104, 235, 236,  
237, 240, 251, 258, 274, 275, 357, 358.

Irregularly (approximately once every two years): POL 210, 213, 239, 257, 259,  
292, 302, 332, 387, 388.

## COURSE DESCRIPTIONS

### **POL 101 Introduction to American Government**

The political institutions, processes, behavior, and problems of government in the United States are considered. The national government is emphasized. The constitution, Supreme Court, Congress, Presidency, political parties, public opinion, and interest groups are studied.

Cr 3.

### **POL 102 Man 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 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. Up-to-date texts authored by Political Science faculty of the University and guest lecturers involved in the Maine government and political process will be used. Open to Political Science majors and as an elective of special interest to the student who has an interest in the programs and politics of the State of Maine.

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 210 Power and Change in American Society**

This is an interdisciplinary course which examines groups in the United States who hold and wield power and groups who are powerless. Functional and dysfunctional

aspects of the political, economic, and social systems are considered. Attempts at intervention to change the systems are examined through selected case studies.

Cr 3.

### **POL 213 Comparative State Political Systems**

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. Prerequisite: POL 101, 102, or 103.

Cr 3.

### **POL 233 The American City**

The city in American political life; types of municipal governments; developments in intergovernmental 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 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**

A survey of existing communist social systems is offered. 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: POL 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.

**POL 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; as a world movement; the Comintern and the popular Front. Impact of World War II: the emergence of the USSR as a superpower. 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 or 102 are recommended. 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 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 measure-

ment; sociological and psychological influences; mass media; linkages to government; the role of public opinion in other nations; voting and presidential elections. 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 Current International Problems**

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 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 requirements. Cr 3.

**POL 306 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. Also listed as SOC 306. Prerequisite: POL 102 or SOC 100. Cr 4.

**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 Criminal 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 353 Municipal Administration Internship**

Provision may be made to gain professional experience in a local government. The course is open only to selected students. 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 3.

**POL 354 State Internship**

Provision may be made to gain professional experience in a department or agency of state government. The course is open to selected students. Readings and research reports are required. The state government internship is available under the Maine State Government Internship Program. Cr var.

**POL 355 Congressional Internship**

Provision may be made to gain professional experience in the local or Washington offices of Maine's U.S. Congressmen and Senators. The course is open to selected students. Readings and research reports are required. Cr var.



**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 within Congress, and the effects of these 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.

**POL 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. (Offered in alternate Fall semesters.) 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 system and its specialized agencies. (Offered in alternate Spring semesters.) 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 3-6.

**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 3-6.

**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 3-6.

**POL 400 Seminar in American Politics**

A seminar focusing on some aspect of politics in small town and rural environments. 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.

**POL 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.

## PSYCHOLOGY

Chairman of Psychology Department:  
Estelita Saldanha, 510 Science Building,  
Portland.

Professors Bishop (on leave Fall Semester  
1976), Paradise, Saldanha; Associate  
Professors Hearn, Sanborn; Assistant  
Professors 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 knowl-  
edge 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 require-  
ments of the school or college involved, as  
well as the University's General Education  
Requirements.

The minimum requirement for a major in  
psychology is 40 hours which must include  
the following:

		<i>Credit Hours</i>
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	4
PSY 361	Sensation and Perception	4
PSY 365	Physiological Psychology	3
PSY 371	History and Systems	3
		<hr/> 35

PSY 101 and 102 are prerequisites for all  
additional psychology courses.

Other courses offered by the department  
can be taken as electives to complete the  
major.

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 will count toward  
fulfillment of the major.

The department recommends that the  
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 psy-  
chology and also include in their programs

study in related fields, such as mathematics,  
biology, philosophy, sociology, anthro-  
pology, 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, learn-  
ing and thinking. This course is a pre-  
requisite 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 140 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. Classroom exercises provide experience in experimental design. Prerequisite: PSY 201. 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 the physical, cognitive, and personality development. Implications of the research for practical application in dealing with children. Prerequisites: PSY 101 and 102. Cr 3.

#### **PSY 224 Adolescent Development**

A systematic study of the behavioral and psychological development of the adolescent. The adolescent personality and problems of adjustment in relation to the family, the school and the community. Prerequisites: PSY 101 and 102. Cr 3.

#### **PSY 232 Psychology of Adjustment**

A study of the development of personality patterns, modes of behavior, life styles, and coping mechanisms considered normal in this society. Consideration of their value to individual functioning. Prerequisites: PSY 101 and 102. NOTE: This course does not count toward major credit. Cr 3.

#### **PSY 235 Psychology of Women**

Psychology of women and psychological literature relevant to men and women. Some topics include physiological and personality differences between the sexes, sex role development, role conflict, women and traditional therapy. 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. Personality development. Current research in such areas as socialization, aggression, identification, values, morality, anxiety. Relates basic principles of perception, motivation, and learning to personality theory. Prerequisites: PSY 101-102. 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. 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. Prerequisites: PSY 101 and 102 with a grade of C or better. 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 223 or permission of the instructor. Cr 3.

#### **PSY 338 Theories of Personality**

A survey of the major contemporary approaches to the study of personality. Different theories are compared, their impact upon current thinking evaluated, and their research contributions assessed. Prerequisites: PSY 101 and 102 with a grade of C or better. 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. Cr 3.

### **PSY 350 Psychology of Learning**

Experimental findings on the fundamental principles that underlie the acquisition and retention of new behavior. Laboratory experience with techniques in the study of learning in animals and humans. Prerequisites: PSY 205 and 201. Cr 4.

### **PSY 351 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. Cr 4.

### **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 4.

### **PSY 365 Physiological Psychology**

Basic neuroanatomy, neurophysiology, and endocrinology, and the relationships be-

tween nervous system functioning and behavior. Physiological analysis of sensory function, motivation, and learning. Prerequisites: BIO 101 and BIO 111, PSY 101, 102. Cr 3.

### **PSY 366 Comparative Psychology**

A survey of the principles and concepts of biological psychology. Understanding the physiological basis and species-typical behaviors, learning, and motivation, from a comparative approach. Prerequisites: PSY 101 and 102 and BIO 101 or BIO 111. Cr 3.

### **PSY 370 Engineering Psychology**

Behavior of individuals operating equipment; effects of control and display design, legibility, and physical dimensions; principles of error reduction and application to military, aerospace, and industrial areas. Prerequisites: PSY 101 and 102. Cr 3.

### **PSY 371 History and Systems of Psychology**

A survey of the history of psychological thought from its beginnings in Greek philosophy to modern times. Special attention will be given to the influence of philosophy and natural science on the development of contemporary psychology. The course concludes with a survey of the major systems. Prerequisite: 15 hours in Psychology. 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.

### **PSY 490 Senior Seminar in Psychology**

A seminar designed to bring together and synthesize the previous courses in the major sequence. Open only to qualified seniors and by permission of the instructor. Cr 3.

**PSY 521 Individual Psychological Testing**

Intensive training in the administrations, scoring, and interpretation of the Stanford Binet form L-M and Wechsler Intelligence Scales. Prerequisites: PSY 201 and 343 each with a grade of C or better and permission of the instructor. Open to graduate students only.

Cr 4.

**PSY 522 Psychological Assessment of Children**

Intensive training in the use of psychological tests (e.g., WISC, WRAT, Bender) in the assessment of childhood deviations with particular emphasis upon interpretation of test results. Prerequisites: Open to graduate students only. PSY 521 and permission of the instructor. Rec 2, Lab 4.

Cr 4.



## SOCIAL WELFARE

Chairman of Social Welfare Department:  
Joseph D. Kreisler, 7 Chamberlain Ave.,  
Portland.

Professor Romanyshyn (on leave Academic  
Year 1976-77); Associate Professors  
Kreisler, Steinman; Assistant Professor B.  
Rich; Visiting Assistant Professor Hayes  
(1976-77); Instructors Cohen, Deprez;  
Lecturers Lazar, Loth, Wood.

The major in Social Welfare consists of  
required foundation knowledge in the  
humanities and the social sciences, and a  
minimum of 34 credits in required social  
welfare courses. The Social Welfare De-  
partment has a policy of awarding credits  
for work experience to a restricted number  
of students if 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 State-  
ment, "Advanced Credit Procedures for  
Social Work Methods and Community  
Lab."

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 in one instead of two years.

In planning their program students should  
regularly consult their faculty adviser,  
whose responsibility it is to explore career  
objectives, to assist in designing the best  
possible combination of required and  
elective courses and to facilitate the most  
productive relationship possible between  
the student and the Department.

\* 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

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 in-  
volved, as well as the University's General  
Education Requirements.

### REQUIRED FOUNDATION KNOWLEDGE

Introductory Level		Credit Hours
ENG 100 College Writing		3
ECON 101 Principles of Economics - or - ECON 150 Elementary Economics		3
POL 101 Introduction to Government - or - POL 102 Man and Politics		3
PLY (Any introductory Philosophy course)		3
PSY 101 & 102 General Psychology I & II		6
SOC 100 Introduction to Sociology		<u>3</u>
		21
Advanced Level		Credit Hours
SOC 330 Sociology of the Family		3
SOC 371 Race and Cultural Conflict		3
SOC 375 Social Disorganization		3
PSY - one of the following		3
PSY 330 Social Psychology		3
PSY 333 Psychopathology		3
PSY 338 Theories of Personality		<u>3</u>
		12

## REQUIRED COURSES

		Credit Hours
SWE 101	Introduction to the Human Services I	3
SWE 252 & 253	Methods of Social Work Practice I & II	6
SWE 254 & 255	Community Laboratory in Social Welfare I & II	Var (minimum 10)
SWE 350	Social Problems and Social Welfare Policy	3
SWE 351	Human Services and the Consumer	3
SWE 370	Human Development and Social Welfare	3
SWE 455	Social Welfare Research	3
SWE 456	Issues in Social Welfare and Social Work	3
		34

NOTE: In addition, two courses (6 credits) are to be selected in consultation with faculty adviser that are particularly related to the student's field placement and career aspirations. Students must have a minimum of 10 hours of credit in SWE 254 and 255, combined.

## COURSE DESCRIPTIONS

- \* Not offered each year -

### **SWE 101 Introduction to the Human Services I**

An orientation to careers in the human services and an introduction to the organization and functions of community agencies and programs, through lecture and discussion. Cr 3.

### **SWE 199 Self-Concept and the Handicapped**

The purpose of this course is to sensitize students to the meaning of being handicapped. Primary learning experiences are experiential, as, for example, confinement to a wheelchair for one day on campus, being mute for a day, being blind for a class session, etc. Cr 3.

### **SWE 252 Methods of Social Work Practice I**

An introduction to basic concepts and skills in social work interviewing and in the problem solving approach within the framework of systems theory. Study of the values and knowledge base of social work skills. Class discussion and assignments based on community lab experience (254) which is taken concurrently. Cr 3.

### **SWE 253 Methods of Social Work Practice II**

A continuation of 252 covering the application of basic social work skills to areas practice such as community organization, crisis intervention, group work. Further

skill development in interventive techniques. Class discussion and assignment based on community lab experience (255) which is taken concurrently. Cr 3.

### **SWE 254 Community Laboratory I** Finkelhor, Kreisler, Rich

For Social Welfare majors: a required internship in a neighborhood or rural setting, or in an agency placement, designed to provide an opportunity to relate social work theory to practice. Variable credits ranging from 2 through 9 per semester. Prerequisites: SWE 101; 252 and 253 (concurrent).

### **SWE 255 Community Laboratory II**

A continuation of SWE 254. Cr var.

### **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, with specific emphasis on contemporary human services and how women are perceived. Prerequisite: SWE 101. 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. Prerequisite: SWE 274 recommended but not required. Cr 3.

**SWE 350 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. 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. Prerequisite: SWE 350 or permission of the instructor. Cr 3.

**SWE 352 Methods of Social Work Practice III**

An advanced course in social work theory and practice. Prerequisites: SWE 252 and 253 or permission of the instructor. Cr 3.

**SWE 353 Methods of Social Work Practice IV**

A continuation of SWE 352. Cr 3.

**SWE 354 Community Laboratory III**

An advanced field experience in human services. Prerequisites: SWE 254 and 255 or permission of the instructor. Cr var.

**SWE 355 Community Laboratory IV**

A continuation of SWE 354. Cr var.

**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 350 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. Cr 3.

**SWE 380 Child Welfare\***

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

**SWE 385 Self-Assessment\***

This course will help students to understand how family and background have influenced their development and the formation of their own lifestyles, values, and career goals. Prerequisite: 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 var.

**SWE 455 Social Welfare Research**

A study of the implications of social welfare research for social policy and social work practice. Prerequisite: at least six hours of social welfare courses. Cr 3.

**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 with permission only. Should be taken in students' final semester, if possible. Cr 3.



## SPECIAL SOCIAL WELFARE DEPARTMENT PROGRAMS

### 1. Student Organization

A social welfare student organization is a major vehicle for student participation in departmental affairs.

### 2. Programs and Activities

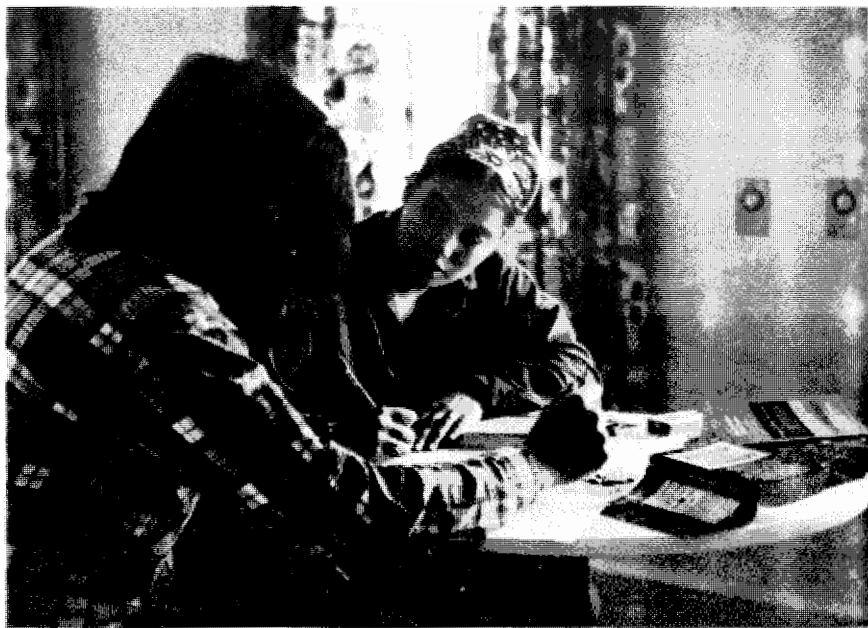
Social Welfare students and faculty are involved in a great many community service and social action projects. These are an integral part of our attempts to offer learning experiences which simultaneously contribute to the development of the students as well as service to the community.

About 250 students are involved in a variety of community projects. Among these are or have been an annual conference on the handicapped, an annual spring festival for senior citizens, social action in the realm of women's issues and the field of gerontology, the development and operation of drop-in centers for youth, organizing workshops for training volunteers, etc.

A special project operated by the faculty and students is the High Street Resource Center. The purpose of the Center is to assist persons of the greater Portland community in obtaining suitable assistance concerning their problems, or in finding the correct agency within the area which can assist them.

The Department also sponsors the University Year in ACTION under the aegis of ACTION. Students are enabled under this program to spend full time in an internship program with a human service organization. This program is open to all University students. Additional information may be obtained at the Department's office.

All students in the Department perform community services in a wide variety of community and social agencies. The Department relies on such agencies to provide appropriate learning experiences and service opportunities.



## SOCIOLOGY

Chairman of Sociology Department:  
Donald F. Anspach, 120 Bedford Street,  
Portland.

(on leave Spring Semester, 1977); Associate  
Professors Anspach, Fullam; Assistant  
Professors Grzelkowski, Lehman,  
Williams, Young.

Professors Giguere, Lacognata, Monsen

The Department of Sociology offers a major in 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 having completed nine hours of sociology credits and with a 3.0 cumulative GPA are eligible for nomination to Alpha Kappa Delta, the national sociology scholarship and honor society.

### REQUIRED COURSES

The minimum requirement for a major in the department is 38 hours of sociology, which must include the following:

	<i>Credit Hours</i>
SOC 100 Introduction to Sociology	3
SOC 300 Sociological Theory	3
SOC 306 Methods of Social Research	4
SOC 307 Statistical Methods for Social Research	4
SOC 401 Senior Seminar	3

In addition, each major is required to take at least one course from each of the following areas, plus three elective courses from within the Discipline:

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

In addition to the 38 required hours of sociology, the sociology major must also take six hours above the introductory level in one of the following:

Anthropology	Mathematics
Biology	Philosophy
Criminal Justice	Political Science
Economics	Psychology
Geography	SCOGIS (Interdisciplinary Studies)
History	Social Welfare

### 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 200 Introduction to Social Problems**

The application of a sociological frame of reference to selected 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. Prerequisite: SOC 100. Cr 3.

**SOC 215 Criminology**

Young

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. Cr 3.

**SOC 300 Sociological Theory**

Fullam

A critical examination of the sociological theories of such people as Marx, Weber, and Durkheim; and contemporary theorists such as Parsons and Merton. Prerequisites: SOC 100 and two other SOC courses. Cr 3.

**SOC 305 Introduction to Methods of Social Research**

Basic methods of social research; hypothesis formulation, research design, data collection, and elementary data analysis. A practical and realistic experience for the criminal justice students and other consumers of research, and beginning researchers. Not a prerequisite for SOC 306. Prerequisite: SOC 100. Cr 3.

**SOC 306 Methods of Social Research**

Monsen

Conceptualization and research design; data collection and analysis; logic of inquiry and research techniques. Includes one hour per week of laboratory exercises. Prerequisite: SOC 100 or POL 102. (This course also listed as POL 306.) Cr 4.

**SOC 307 Statistical Methods for Social Research**

Monsen

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

**SOC 310 Social Change**

Giguere

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

**SOC 312 Social Stratification**

Anspach

Systematic analysis of social differentiation and evaluation. Theories of and research in the structure and function of class, caste, and ethnic stratification. Prerequisite: SOC 100. 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. Cr 3.

**SOC 315 Personality and Social Systems**

Anspach

A sociological examination of theories and research in some major areas relating personality and social systems; attitudes and behavior; socialization; social perception; a bureaucratic structure and personality; etc. Emphasis on issues involved in relating two theoretical levels of analysis. Prerequisite: SOC 100. Cr 3.

**SOC 316 Sociology of Sex Roles**

Young

An examination of sex roles in a sociopolitical and cultural context focusing on the sexual division of labor in American Society. Prerequisite: SOC 100. Cr 3.

**SOC 330 Sociology of the Family**

Anspach, Giguere

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. Cr 3.

**SOC 331 Sociology of Education**

Lacognata

A study of theory and research on the educational institution, with emphasis upon the multiple and changing functions of the formal education in industrial societies. Prerequisite: SOC 100. 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. Cr 3.

### **SOC 333 Sociology of Medicine**

Attention is given to 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.

Cr 3.

### **SOC 334 Sociology of Religion**

Fullam

Religion as a social institution. Attention is given to the social correlates of religion and the functions of religion in society. Prerequisite: SOC 100.

Cr 3.

### **SOC 335 The Sociology of Penology and Corrections**

Lehman

The course will focus on the social and political problems of dealing with offenders using an examination and analysis of the inter-relationships between penology and corrections. Prerequisite: SOC 215 or permission of instructor.

Cr 3.

### **SOC 336 Sociology of Law**

Lehman

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 215, or permission of instructor.

Cr 3.

### **SOC 337 Sociology of Juvenile Justice**

Examination and analysis of the philosophies, processing, and treatment of juvenile offenders with an emphasis on historical and comparative materials. Prerequisite: SOC 215 or permission of instructor.

Cr 3.

### **SOC 350 Sociology of Urban Life**

Giguere, Grzelkowski

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.

Cr 3.

### **SOC 352 Population Dynamics**

Giguere, Lacognata

The dynamics of change in size, composition and distribution of population by means of fertility, mortality, and migration

within the context of the physical, social and cultural environments. Prerequisite: SOC 100.

Cr 3.

### **SOC 353 Collective Behavior and Social**

#### **Movements**

Grzelkowski

Unstructured social behavior, e.g., crowds, mobs, riots. The rise and development of social movements emphasizing structuring and institutionalization. Prerequisite: SOC 100.

Cr 3.

### **SOC 354 Small Group Analysis**

Communication and interaction patterns within small groups are identified and analyzed. Course involves observation of and participation in such interaction. Prerequisite: SOC 100.

Cr 3.

### **SOC 355 Social Structure and Politics**

Monsen

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.

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.

Cr 3.

### **SOC 357 Bureaucracy in Modern Society**

Grzelkowski

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. The course normally involves a student research project. Prerequisite: SOC 100.

Cr 3.

### **SOC 361 Sociology of Franco-Americans**

Giguere

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.

Cr 3.

**SOC 371 Race and Culture Conflict**

Fullam

Analysis of factors involved in group conflict, with emphasis on minority groups in culture-conflict situations. Prerequisite: SOC 100. Cr 3.

**SOC 374 Sociology of Mental Health and Mental Illness**

Anspach

An examination of theory and research in the mental health field. 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. Cr 3.

**SOC 375 Sociological Perspectives on Deviance**

The origin and causes of socially disapproved behavior. Ways in which society interprets and copes with the deviant. Study of the major forms of social disorganization; specific social problems are considered, such as suicide, crime, drug addiction, alcoholism, prostitution, mental illness, divorce, group conflict. Prerequisite: SOC 100. Cr 3.

**SOC 380 Seminar in Social Thought**

Lacognata

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 397 Department Projects I**

Independent reading and/or research for juniors and seniors. Apply to department chairman. Prerequisite: 15 hours in sociology. Cr 2-3.

**SOC 398 Department Projects II**

Continuation of independent reading and/or research for juniors and seniors. Apply to department chairman. Prerequisite: SOC 397. Cr 2-3.

**SOC 400 Theory Construction**

Monsen

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 401 Senior Seminar**

Focusing on synthesis, the seminar is meant to provide the sociology major with an overall view of his 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.

## THEATER

Chairman of Theater Department: William P. Steele, 7 Chamberlain Ave., Portland.

Associate Professors Duclos, Power (on leave Fall Semester, 1976), Rootes (on leave Spring Semester, 1977), Steele, Stump.

### BACHELOR OF ARTS (B.A.) DEGREE IN THEATER

Only sophomores or above will be accepted as theater majors. Incoming freshmen, however, may declare their intent to major. For those students declaring their intent to become a theater major, the following courses are required:

#### Preparation for the Theater Major

- ENG 101 College Writing (May be waived through department acceptance of writing samples)
- THE 120 Fundamentals of Acting
- THE 101 Introduction to Drama (or THE 144 Introduction to Theater Production)
- THE 290 Oral Interpretation
- THE 135 Stage Craft

Students who have declared an intent to become majors may request status as a major during the spring semester of their sophomore year. 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 twenty-four units in Theater, not to include those hours selected for major preparation, is required for graduation.

The following units are required:

- THE 320 Contemporary Acting Methods
- THE 330 Stage Lighting (or THE 332 Scene Design)
- THE 340 History of the Theater I (or THE 341 History of the Theater II)
- THE 210 Play Analysis to replace Dramatic Theory

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 fifteen units must be selected from the following allied areas:

#### ART

- ARTX 102 Film as Image and Idea (3)
- ARTX 141 Design I (3)
- ARTX 151 Drawing I (3)

#### DANCE

- DNCE 300 Contemporary Dance (1)
- DNCE 301 Contemporary Dance (1)
- DNCE 302 Contemporary Dance (1)

#### 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)

#### FOREIGN LANGUAGES & CLASSICS

- CLS 252 The Tragic Hero in Ancient Literature (3)
- FRE 264 Avant-Garde Theater 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)

## 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 theater student, all majors are required to participate in at least five productions while matriculating at UMPG. 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 UMPG productions, that student must then attempt some aspect of technical theater. Conversely, if a student concentrates in the area of technical theater, 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 about the student's progress.

## COURSE DESCRIPTIONS

### THEATER

#### THE 101 Introduction to Drama

A lecture-discussion course designed to provide students with a conception of the structural elements of dramatic literature. The course consists of a survey of Greek medieval, Elizabethan, French neo-classic, and 18th, 19th and 20th Century plays. Cr 3.

#### THE 120 Acting I: Fundamentals of Acting

A course designed to introduce the student to basic skills of acting through the use of mime, improvisation, and role playing. Emphasis made on internal preparation for developing a role and on external techniques for projecting that role. Cr 3.

#### THE 124 Intercollegiate Forensics

A course designed to acquaint students with the techniques of intercollegiate competition. Students will prepare original speeches for participation in such competitive categories as rhetorical criticism, informative and persuasive as well as manuscripts for presentation in the interpretive events. Cr 1.

#### THE 125 Intercollegiate Forensics

A continuation of THE 124. Cr 2.

#### 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 134 Introduction to Theatre Production

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. Practicum required. Cr 3.

#### THE 135 Stage Craft

A lecture-discussion-performance course in technical theatre encompassing scene design, stage craft, properties, and similar topics relevant to technical direction. 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. Cr3.

**THE 210 Play Analysis**

Representative dramas for the stage are read, discussed and analyzed in writing in terms of Plot, Character, Thought, Diction and Spectacle, and in terms of dramatic form and style. Cr3.

**THE 220 Acting II: Voice for the Actor**

Designed as a practicum course to develop the actor's voice allowing him to understand the vocal mechanism and the methods in which it can be used to create articulate speech projection and dialect. Prerequisite: THE 120. Cr3.

**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 from improvisations and existing literature workshops and improvisational work with children in the community will serve as practicum experience for students enrolled. Cr3.

**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 the critic's options in making judgments and upon development of a workable writing style. A minimum of five plays will be seen from which reviews will be generated. Prerequisite: THE 134. Cr3.

**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. Cr3.

**THE 320 Acting III: Contemporary Acting Methods**

Designed to broaden the basic skills of the actor in achieving theatrical effectiveness through an individualized examination of the actor's problems with heavy emphasis placed upon contemporary techniques. Student will become acquainted with the principles established by Stanislavsky, Strasberg and Ball. Prerequisites: THE 120, THE 220. Cr3.

**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 134 and THE 135. Cr3.

**THE 331 Scene Design**

Lecture and practicum in stage scenic design. Emphasis on the visual art and drafting of designs. Prerequisites: THE 134 and THE 135. Cr3.

**THE 332 Fundamentals of Directing**

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, 134, 135, 220 and 320; Senior or Junior with Permission. Cr3.

**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. Cr3.

**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. Cr3.

**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. Cr3.



### **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 will be studied which exemplify the literary, social, political, and philosophical aspects of the age. Prerequisites: THE 101 or 340 or 341. 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 will be studied which exemplify the literary, social, political, and philosophical aspects of the age. Prerequisites: THE 101, 340, and 341. 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-Off Broadway" Theatre. Prerequisites: THE 101, 340 and 341. Cr 3.

### **THE 390 Advanced Oral Interpretation**

A continuation of THE 290. Cr 3.

### **THE 391 Readers Theater**

A study of techniques utilized to prepare a script and perform a literary work in the style of Readers Theater. Students will be attempting to extend or provide insights into their material through actual oral performance. Prerequisite: THE 390. Cr 3.

### **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 instructor 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 adviser (Review Board). At the completion of the oral examination the faculty will advise the student's adviser as to their determination of a grade. The adviser 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 T/C student is entitled to take six units in either Independent Study or Theatre Project, or a combination of both not to exceed six units unless a specific proposal is unanimously approved by the Theatre/Communications faculty. Cr 3.

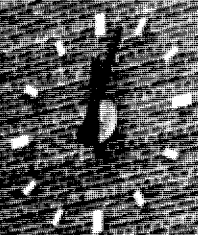
### **THE 433 Project I**

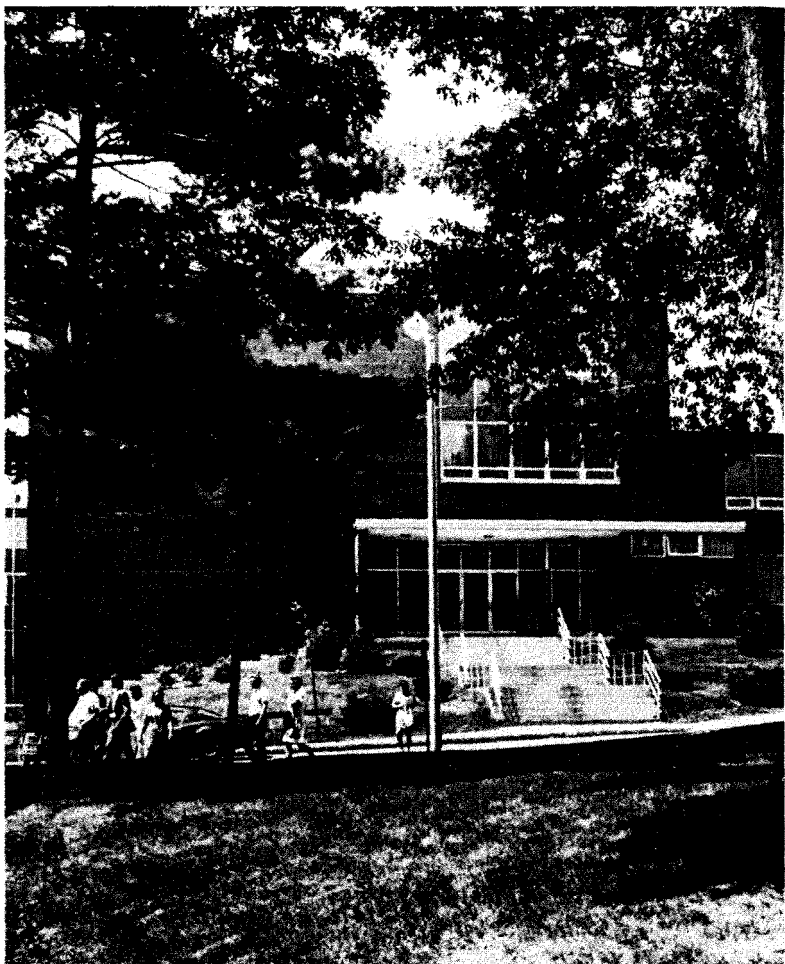
Investigation of special topics, or execution of special projects which fall within the purview of theatre. Students may select an inter- or intra-departmental committee of three professors to approve, assist, and oversee the project. Prerequisites: Juniors and Seniors only; precise definition of project 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 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. Cr 3.

BAILEY  
HALL





# COLLEGE OF EDUCATION

## Harlan A. Philippi, Dean

409 Bailey Hall, Gorham

### Director of Undergraduate Programs

Associate Professor Bruce A. Allen

### Director of In-Service Programs

Assistant Professor A. Nye Bemis

### Director of Graduate Programs

Associate Professor George F. Hackett

### Associate Director of Clinical Experiences

Professor William H. Soule

### Associate Director of Placement

To be announced

## FACULTY

### Division of Undergraduate Programs

#### Elementary Education Programs

Professors Neuberger, Stearns; Associate Professors Allen, M. Costello, Fickett; Assistant Professors Colucci, Cuprak, Davis, Hamrin, Lapointe, Lyons, D. Moore, Pine (Coordinator); Instructors Berkovich, Turner.

#### Industrial Arts Program

Associate Professors Carter (Coordinator), Faulkner, Morrill, Nannay; Assistant Professors Jellema, W. Moore, Taylor, Zaner; Instructor Anderson.

#### Secondary Education Programs

Professors Cobb, Rhoades, Soule; Assistant Professor Whiteside; Instructor Witham.

#### Vocational-Technical Programs

Professor Berry (Coordinator); Associate Professor Carter.

### Division of Graduate Programs

#### Administration

Professors Cobb, Downey (Coordinator), Stearns; Associate Professors Hackett, Smith.

#### Adult Education

To be announced.

#### Classroom Teacher

Associate Professors Chronister (Coordinator), Milbury, Whitten; Assistant Professor Bemis.

#### Counselor Education

Professor Southworth (Coordinator); Associate Professor Malik; Instructor Danovitz.

#### Exceptionality

Associate Professor Walker.

#### Industrial Education

Professor Mitchell.

#### Reading

Associate Professor O'Donnell.

## BACCALAUREATE PROGRAMS IN TEACHER EDUCATION

The College of Education concerns itself with the direct preparation of preschool, elementary, and secondary school teachers.

All curricula and programs require four years for completion. Upon graduation, the student receives the Bachelor of Science Degree with the proper teaching certificate. The University prepares teachers in the following areas:

### **Early Childhood Education**

Three options are available within this program: The Preschool option prepares students to work in a variety of group settings such as Day Care, Head Start, Parent-Child Centers, and Nursery Schools. The Early Elementary option qualifies students to teach in kindergarten through grade three. The Preschool-Early Elementary combination qualifies students to teach at the preschool through grade three levels.

Upon successful completion of one of the above programs students will be certified to teach in kindergarten through grade eight with an Early-Childhood endorsement.

### **Elementary Education**

The Elementary Curriculum qualifies graduates to teach grades kindergarten through eight with emphasis on grades four through six.

Both Early Childhood Majors and Elementary Education Majors are required to complete a basic core of courses which meet the General Education Requirements and which are especially adapted to meet the general educational needs of teachers of children at the preschool, early elementary, and elementary grade levels.

### **Secondary (7-12)**

The undergraduate programs in Secondary Education, with the exception of the Mathematics Program, are being phased out of the University of Maine at Portland-Gorham. The educational fields affected by the phase-out are Secondary English, Secondary History, Secondary Language, Secondary Social Science, Secondary Science (all areas), and Secondary Theatre/Communications.

The phase-out does not affect Art Education, Industrial Arts Education, Mathematics Education, Music Education, and Vocational/Technical Education programs.

The phase-out will cover approximately a three year period and will not affect College of Education students presently enrolled in Secondary Education.

### **Art**

Graduates of the program are qualified to teach or supervise art in all grades of the public schools. All information about the Art Education curriculum is provided under the Art Department heading in the section of the catalog dealing with the College of Arts and Sciences.

### **Music**

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 field 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 Maine Education curriculum is provided under the Music Department heading in this section of the catalog dealing with the College of Arts and Sciences.

### **Industrial Arts**

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 of the catalog.

## **Vocational-Technical Education**

This is a part-time evening and summer program leading to a B.S. degree with a major in Vocational-Technical Education or in Technology. A detailed description of this program is provided on the following pages of this section of the catalog.

### **Early Childhood — Head Start Intern Option (competency-based)**

The Early Childhood Head Start Intern Curriculum is specifically designed for the student (intern) who is employed in the 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-8 years of age.

### **Curriculum Outline:**

#### **General Studies**

Interns will complete the core of general studies as described in the 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 follow:

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 adviser 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 201-209) listed below, the intern focuses on teacher competencies outlined by the Child Development Associate (CDA) Consortium.

EDFE 201 - Directed Classroom  
Observation - 4 credits

EDFE 202 - Directed Classroom  
Participation - 4 credits

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 333 - Human Growth and Development

EDU 300 - Introduction to Teaching in the Primary Grades

EDU 302 - Primary Reading

EDU 304 - Math Experiences for Young Children

EDU 307 - Science Experiences for Young Children

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.

Major/Minors (a 30 credit major 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.

### 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 advisers as a teaching tool.

### PROGRAMS FOR EARLY CHILDHOOD MAJORS AND ELEMENTARY EDUCATION MAJORS

Both Early Childhood and Elementary Education Majors are required to complete the following core of courses which meet the General Education Requirements and which are especially adapted to meet the general educational needs of teachers of children at the preschool through grade six levels.



### Core Requirements for Early Childhood and Elementary Education

<i>Basic Core:</i>		<i>Credit Hours</i>
Humanities	ENG 120—Introduction to Literature, or ENG 200—Topics in Literature, plus one course in a foreign language, Philosophy, English, Comparative Literature, or Classics.	6
Fine and Applied Arts	Any electives from (ARTH, or ARTS prefixes), Music, Dance, Communication, or Theatre.	6
Science	Electives.	6
Mathematics	MS 131, MS 231, and MS 232. A Mathematics elective will be substituted if MS 131 is passed through a proficiency test.	9
Social Sciences	Electives from Anthropology, Political Science, Psychology, History, Geography, Economics	6
Interdisciplinary Courses	(Or any academic courses in addition to the major or minors).	6
Physical Education	The equivalent of one complete year (two semesters).	2
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### Additional Requirements for Early Childhood and Elementary Education Majors

In addition to the general and professional requirements, each Early Childhood and Elementary Education major is required to complete at least one approved major of 30 credits or two approved minors of 18 credits or two approved minors of 18 credits each. Minors may be in either an academic or professional education area. Students are alerted that a total of 60 credits in academic areas is required to meet certification demands.

Approved programs:

#### College of Arts and Sciences

*Majors:*

English  
History  
Mathematics  
Science  
Social Science  
Economics

*Minors:*

English  
French  
Geography  
History  
Mathematics  
Music  
Science  
Social Science

#### College of Education

*Major:*

Language-Communications

*Minors:*

Early Elementary Education  
Language-Communications  
Learning Disabilities  
Preschool Education

#### Division of Physical Education

*Major:*

None

*Minor:*

Physical Education Leadership

Students should consult with an adviser when selecting courses to complete a major or minor.



### Professional Education Requirements For Early Childhood Majors

Each student in the Early Childhood Program regardless of the option selected is required to complete the following core for a minimum of 26 credit hours.

*EDU 150	Pre-Professional Experiences	2
*EDU 200	Studies in Educational Foundations	3
*EDPY 333	Human Growth and Development - or	3
EDPY 333	Human Growth and Development-Early Childhood	
*EDU 340	Communication, Reading, Language Arts & Books	6
EDU 324	Student Teaching	12-18

Students majoring in Preschool Education must fulfill the following additional requirements for a minimum of 12 credit hours.

*EDU 342	Theories & Practices of Early Childhood Education	3
*EDU 344	Teaching the Child Under Six	3
EDU 346	Exceptionality and the Preschool Child	3
	Selections from Core Electives	3

Students majoring in Early Elementary Education must fulfill the following additional requirements for a minimum of 12 credit hours.

*EDU 300	Introduction to Teaching in the Early Elementary Grades	3
*EDU 304	Math Experiences for the Young Child	3
*EDU 307	Science Experiences for the Young Child	3
	Selections from Core Electives	3

\*Must be completed prior to Student Teaching or in conjunction with Student Teaching in a Teaching/Learning Center.

Preschool majors who choose to minor in Early Elementary Education must complete the Early Elementary Education requirements with an additional 6 hours selected from the core electives.

Early Elementary Education majors who choose to minor in Preschool Education must complete the Preschool Education requirements with an additional 6 hours selected from the core elective.

### Early Childhood Education Electives

EDU 152	Pre-Professional Field Experiences	2
EDU 325	Seminar in Early Childhood Education	3
EDU 348	Cooperative Experiences in Early Childhood Education	4
EDU 440	Workshop in Creative Expression	3
EDU 442	Organizing and Implementing the Preschool	3
EDU 465	Media and Instructional Materials for the Early Childhood Teacher	3
	Appropriate Education Courses	3

### Professional Education for Elementary Education Majors

Each student in the Elementary Education Program is required to complete a minimum of 35 hours in professional education as follows:

*EDU 150	Pre-Professional Experiences	2
*EDU 200	Studies in Foundations of Education	3
EDPY 333	Human Growth and Development	3
*EDU 301	Elementary Curriculum-Methods & Materials	3
*EDU 303	Elementary Reading	3
*EDU 305	Teaching Elementary School Mathematics	3
*EDU 308	Teaching Elementary Science	3
EDU 336	Children's Literature	3
EDU 324	Student Teaching	12-18

\*Must be completed prior to Student Teaching

### **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 201 Current Economic Problems  
ECON 350 Comparative Economic Systems  
ECED 300 Economic Concepts and Resource Materials

#### **Elective Courses:**

6 hours of electives from any of the remaining Economics courses.

(NOTE: This is a 21-hour minor.)

### **English Major and Minor**

An English major 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  
At least one course in regional geography from:  
GEOG 201 World 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.

### **History Major and Minor**

A History major of 30 credits or a minor of 18 credits consists of courses elected from the History course offerings.

### **Mathematics Major and Minor**

A Mathematics major 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 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.

The minor in Music Education is comprised of the following courses:

		<i>Credit Hours</i>
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 200	Music for the Classroom Teacher	3
MUED 322	Elementary Music Methods & Materials	3
	Ensembles	2
MUS 150-151	Applied Music	2
		<hr/> 24

The minor in Music Education Program requires a total of 24 hours.

### Science Area Major and Minor

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, 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 Major and Minor

A Social Science major 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.

## Language Communications Major and Minor

### Options

#### A. 30-hour concentration (major)

(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 concentration (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 three (3) hours of independent study.

#### Section No. 1

- EDU 302 Primary Reading
- EDU 303 Elementary 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 Speech Correction Methods

#### 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: Voice for the Actor
- THE 290 Oral Interpretation

### Learning Disabilities Minor

A Learning Disabilities minor of 18 credit hours consists of the following sequence of courses:

*Credit Hours*

#### Required:

EDU 316	Introduction to Learning Disabilities	3
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#### Electives:

EDPE 308	Physical Education for the Atypical Child	3
EDU 321	Atypical Reading	3
EDU 363	Emotional Problems of the Exceptional Child	3
EDU 366	Practicum in Learning Disability Problems	3-6
EDU 367	Psycholinguistics	3
EDU 368	Introduction to Speech Correction	3

### Physical Education Leadership Minor

A Physical Education minor of 18 credits may be completed by successfully completing the following required courses:

*Credit Hours*

#### Required:

EDPE 298	First Aid and Safety	2
EDPE 310	Human Growth and Development Lab	1
EDPE 304	Methods and Materials for Teaching Physical Education	3
EDPE 401	Practicum in Physical Education Leadership	3
		9

A minimum of 9 credits are to be successfully completed from the following courses:

*Credit Hours*

#### Elective Courses:

EDPE 216	Analysis of Human Movement	3
EDPE 306	Movement Education in the Elementary School	3
EDPE 309	Rhythms and Motor Activities	3
EDPE 300	Camp Leadership	3
EDPE 308	Physical Education for the Atypical Child	3
EDPE 398	Independent Study in Physical Education	1-3

## **PHYSICAL EDUCATION REQUIREMENTS FOR ALL EDUCATION MAJORS**

Students in the College of Education are required to complete one year 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.
4. A student enrolled in CED and not matriculated in the day program. However, if a student changes from CED status to day-college status, the Physical Education requirements must be completed unless other exemptions are applicable.
5. The Dean of the College may waive the Physical Education requirements for other reasons reflecting unusual circumstances.
6. Successful completion of a Physical Education proficiency examination.

A carbon copy of the letter exempting the student will be sent to the student, faculty adviser, and registrar.

### **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; and only one course in the 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 program coordinator is required.

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

### **ALTERNATIVE INTERN PROGRAMS**

A teaching internship is a cooperative teacher education program for Early Elementary 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 a two-semester program 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.

### **Other General Requirements:**

Students majoring in the Early Elementary or Elementary 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.

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.

## PROGRAMS IN SECONDARY EDUCATION

The secondary curriculum qualifies graduates to teach grades seven through twelve in the fields of biology, economics, English, French, general science, history, mathematics, theatre/communication, and social studies. The academic major, minor, and area-concentration programs are provided by the appropriate departments of the College of Arts and Sciences, and descriptions of those programs will be found under the relevant departmental headings of that portion of the catalog devoted to the College of Arts and Sciences. The Social Science Area program is described in the subsection dealing with the Geography-Anthropology Department, and the Science Area program (including both physical and biological sciences) is described in the section dealing with Physical Sciences and Engineering.

Students in the College of Education may also obtain an academic major or minor in Economics, as described in this catalog in the section dealing with the School of Business and Economics.

### General Education Requirements for Secondary Majors.

As part of the 30-hour general education core required of all students, Secondary Majors must meet the following specific pre-professional requirements:

A. A three-credit course in either ENG 120 Introduction to Literature or ENG 200 Topics in Literature.

B. Three credit-hours in psychology.

Departmental courses in the student's major area may not be applied towards fulfillment of the general education core requirements.

### Professional Education Curriculum for Secondary Majors

Students may elect one of two patterns to complete this part of their program.

#### PATTERN A

##### Professional Studies

	<i>Credit Hours</i>
EDU 150 Pre-Professional Experiences	2
EDU 200 Foundations of Education	3
EDU 333 Human Growth and Development	3
EDU 315 Methods of Teaching in the Secondary School or a Methods course in a specific discipline	3
EDU 324 Student Teaching	12
Total	25

#### PATTERN B

##### Professional Studies

	<i>Credit Hours</i>
EDU 150 Pre-Professional Experiences	2
EDU 200 Foundations of Education	3
EDU 333 Human Growth and Development	3
EDU 315 Methods of Teaching in the Secondary School or a Methods course in a specific discipline	3
EDU 324 Student Teaching	6
Plus three semester-hours of electives from the following:	
EDU 150 Pre-Professional Field Experiences	
EDU 314 Introduction to Secondary Education	
EDU 306 Secondary Reading	
EDU 310 Preparation of Classroom Materials	
EDU 313 Maine School Law	
EDU 319 Measurement and Evaluation	
EDU 323 Independent Study in Education	
EDU 327 Seminar in Secondary Education	3
Total	22

## **COURSES IN EDUCATION**

### **EDU 150 Pre-Professional 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. Transportation not provided. (Pass-Fail only.) Cr 2.

### **EDU 152 Pre-Professional Field**

#### **Experiences**

An exploratory introduction to education through direct involvement with youth in public schools or educative agencies. At least two hours per week of field work, including seminars as necessary, in the school setting. An elective primarily for sophomores with enrollment limited according to transportation and available opportunities. Transportation not provided. (Pass-Fail only.) Cr 2.

NOTE: A student, with permission, may continue this course for subsequent semesters under course code numbers EDU 153, and 154.

### **EDU 200 Studies in Educational**

#### **Foundations**

This course provides an introduction to the study of American educations. Problems and issues in contemporary education are examined from several perspectives, including the social, historical and philosophical. No prerequisites. 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 Curriculum:**

#### **Methods and Materials**

A basic course which emphasizes language arts and social studies in the intermediate grades. Includes programming, types of curricula, evaluation, development of units, lesson planning, grouping, reporting to parents, analysis of textbooks, and audio-visual techniques. Observations and resource speakers are included. Cr 3.

### **EDU 302 Primary Reading**

This course introduces and analyzes the basic components of the developmental primary reading program. Students are encouraged to formulate instructional goals which must be considered in planning balanced reading activities. The topics include: individual differences in reading readiness; word perception and vocabulary development; reading interests; the directed reading-thinking activity; oral reading; diversifying comprehension requirements; and diagnosis of reading competence. Special attention given to research and innovations with emphasis on the applied use of concepts, practices, and materials. Includes pre-professional experiences. Cr 3.

### **EDU 303 Elementary Reading**

This course will involve the relationship of reading skills to the typical learner, the materials used to teach him, the processes that are common approaches, and various kits used as vehicles. The student also will be exposed to the classroom, both as an observer and a participant in teaching. Cr 3.

### **EDU 304 Math Experiences for Young Children**

Techniques for teaching mathematics in the primary grades will be developed with an emphasis on the use of manipulative aids to develop math concepts. The discussions will also focus on the scope and sequence of a primary grade math curriculum in terms of the cognitive development of primary grade children. Includes field experience when appropriate. Prerequisite: EDPY 333 and MS 232. Cr 3.



### **EDU 305 Teaching Elementary School Mathematics**

The content of this course will focus on developing techniques for teaching mathematics to elementary grade pupils. To some extent the course will be conducted in the setting of a mathematics laboratory and when appropriate a field experience will be an integral part of the course. Prerequisite: MS 131, MS 231, MS 232. Cr 3.

### **EDU 306 Secondary Reading**

This course places emphasis upon developmental, corrective, adaptive, and remedial readings. Methods of teaching reading in the secondary school and reading instruction as it applies to the content areas. Cr 3.

### **EDU 307 Science Experiences for the Young Child**

An introductory course in the teaching of science to children K-3, designed to provide experiences in both current and traditional teaching methods, materials, and attitudes. Cr 3.

### **EDU 308 Teaching Elementary Science**

Problems and methods of teaching science K-6, with emphasis on units and systems designed particularly for grades 4-6. Current practices and materials are experienced and evaluated in a field setting. 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. Class limited to 30. Lab fee required. Cr 3.

### **EDU 310 Preparation of Classroom 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. Classes limited to 18. No prerequisite. 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 recent language art books for the elementary school. Opportunities to work with children in local schools. 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 Introduction to Secondary Education**

Secondary Curriculum will be an effort to model a teaching-learning process that emphasizes that each person learns only what that individual needs and wants to know. Thus the student will be presented with a number of behaviors that might be perceived as appropriate for a teacher and permitted to select those objectives and methods of achieving these objectives that most closely meet individualized needs. The student will consider philosophy, objectives, motivation, learning theory, evaluation, methods, school administration and organization, school law, *et al.* Cr 3.

### **EDU 315 Teaching English in the Secondary School**

A methods course for English majors preparing to enter secondary teaching, Grades 7-12. Students are familiarized with current developments in the "new English" as evidenced by recent theory and practice. Practical applications include special projects in the teaching of language, literature, composition, and reading. Students are given opportunities for firsthand observation of secondary English classrooms in the greater Portland area; workshops and conferences with visiting junior and senior high school teachers; tutorial assignments as University "Writing Laboratory" aides; and mastery of basic skills in the use of audio-visual equipment before actual classes. 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 317 Teaching Social Studies in the Secondary School**

The course deals with the role of the social studies teacher as an agent of change, prompting sensitivity, procedure, method, and concern. It presents new concepts, methods, and materials in the professional dimensions of social studies instruction. 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 curricula, 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 321 Atypical Reading Patterns**

The purpose of this course is to give the prospective teacher added depth with the typical as well as the atypical reader. Special areas of emphasis will be speech and

reading. Includes pre-professional experiences. Cr 3.

### **EDU 322 Remedial Reading**

An empirical approach, relating class discussions to clinical observation. Methods by which the teacher copes with individual difficulties are explored. Testing and diagnostic work are studied and applied to subject-groups. Cr 3.

### **EDU 323 Independent Study in Education**

To provide juniors and seniors who have demonstrated critical and analytical capability an opportunity to pursue a project independently, charting a course and exploring an area of interest within their major field, bearing upon it previous course experiences and emerging with an intellectually sound, coherent synthesis, or an artistic or technical creation reflecting a high caliber of performance. Cr Var.

### **EDU 324 Student Teaching**

Full time student teaching during the junior and/or senior year is provided under direct supervision in off-campus situations for all who meet requirements. Secondary Education students must complete a minimum of one half semester of student teaching. Early Childhood and Elementary Education majors will complete a minimum of two consecutive quarters. Early Childhood majors who are pursuing a combined option will complete at least one quarter at each level (preschool and early elementary). Students in this program must consult with their advising team prior to registering for this course.

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 listings in the catalog. Cr Var.

### **EDU 325 Seminar in Early Childhood Education**

This course may be taken simultaneously with EDU 324 Student Teaching, and is designed to give the student the opportunity to interact and brainstorm with his/her contemporaries. Additionally, seminar sessions will be devoted to the exploration of timely topics and innovations in early childhood education through films, guest

speakers, or visits to other early learning situations. (Formerly Seminar in Primary Education.) Cr 3.

### **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 Student Teaching. Cr 2-3.

### **EDU 327 Seminar in Secondary Education**

A group discussion concerned with student teachers' questions and answers. Cr 2.

### **EDU 327 Seminar in Secondary Education**

A group discussion concerned with student teachers' questions and answers. Cr 2.

### **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 330 Teaching Biology in the Secondary School**

A course designed primarily for students preparing to teach biology in the secondary school. Emphasis is placed on advances in the secondary biology curricula, notably the Biological Sciences Curriculum Study approaches. A major portion of the course work is devoted to the laboratory exercises and techniques which typify the investigative approach of these curricula. Simulated situations in the teaching of biology will be employed. Cr 3.

### **EDU 336 Children's Literature**

This course emphasizes a creative, interdisciplinary approach to children's books, an understanding of the interests and developmental tasks of the child, and, by precept and example, a presentation of methods of individualizing reading. The student will be expected to read children's books widely and in depth. Cr 3.

### **EDU 340 Communication, Reading, Language Arts, and Books**

Comprised of a series of interrelated modules, this course which focuses on the

child of 3-8, will address the nature of the English language, language acquisition, language training programs, reading readiness, early reading, and the inter-relationship of the language arts. The culminating module will examine Children's Literature in the early childhood classroom. Field experiences. Cr 6.

(Will replace Primary Reading Fall Semester 1977)

### **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 pre-school 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 to introduce students to assessment, identification, and intervention strategies with exceptional students at the preschool level. Emphasis of the course will be directed at investigation of theories and practices employed in these strategies. Readings, direct observation, and extensive discussion will comprise the format of the course. Cr 3.

### **EDU 348 Cooperative Experience in Early Childhood Education**

In lieu of EDU 151 students matriculated in the Early Childhood Program may opt for a semester-long experiential program. In this course, the student secures a part-time position; for a minimum of 4 hours per week as a Teacher Assistant or Teacher Aide in a classroom (K-3) or early learning setting. In addition to a paid work experience the student receives academic credit. Cooperative Experiences are arranged and approved by the faculty. Students interested in selecting this option must consult with their advising team. Cr 4.

### **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; others 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: Open to Juniors and Seniors who have completed EDU 200 or equivalent. 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 covers various approaches to the study of language, focusing particularly on language development in the child. Students will become familiar with various language tests and language development materials. Speech perception, and language cognition will also be covered. 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 of 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 Awareness has been identified by the U.S. Office of 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, woodworking, creative dramatics and dramatic play. Participants will become involved in activities and projects that they will utilize in field experiences related to this course. Lab fee. (Expected date of implementation, Spring 1977.) 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 shadowing effective preschool directors while participating in this course. (Anticipated date of implementation, Fall 1978.) 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. No prerequisite. Class limited to 15. 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. Class limited to 18. Lab fee: \$7.50. Cr 3.

#### **ECED 300 Economic Concepts and Resource Materials**

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 only during 1976-78. Cr 3.

#### **EDPY 331 Group Dynamics**

A study of the nature of group process and one's own functioning in a group. Problems of leadership, roles filled, and techniques will be integral parts of the course. The developing awareness of one's self in relation to others in a group will be of importance. Specific techniques will include reading, leadership of other groups, and participation in a seminar planned to aid in the exploration of leadership styles of self and others. Open to upper class undergraduates and graduate students. 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-nonverbal communication. Learning techniques center around extensive reading, common class experiences, and intensive small-group interaction. 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. Special consideration given to the learning process, perception, motivation, individual differences, and measurement, with reference to the facilitation of effective teaching and learning. A one-semester course open to upperclass students. Cr 3.



# INDUSTRIAL ARTS

## INDUSTRIAL ARTS

### Purposes

The undergraduate curriculum in Industrial Arts has as its central purpose the preparation of certified teachers who are able to organize, manage, and teach a program of industrial arts in the elementary and secondary schools of the State.

A secondary purpose of the program is to provide non-teaching majors an opportunity to develop general technical proficiencies along with a basic knowledge of business administration, leading to middle management positions in industry.

A B.S. degree with a major in Industrial Arts or in Technology will be granted upon successful completion of the following requirements:

## REQUIRED OF BOTH TEACHER EDUCATION MAJORS AND TECHNOLOGY MAJORS

### General Education Courses: 49 credit hours total

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	1 credit
Electives (General)	6 credits

### Core Requirements in Technical Education: 27 credit hours total (Each course listed carries 3 credits)

IA 100 Manufacturing and Construction
IA 101 Energy and Transportation
IA 130 Graphic Communication
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

## REQUIRED OF TEACHER EDUCATION MAJORS

### Professional Education Courses: 23 credit hours total

EDU 150 Pre-Professional Field Experiences	2 credits
EDU 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.)

### Teaching Area Options

Teacher Education majors have four teaching area options, one of which must be selected prior to entrance to the junior year. Each student should plan the program with the adviser. The teaching areas are I—Laboratory of Industries, II—Energy and Transportation, III—Graphic Communication, IV—Manufacturing and Construction. The following tabulation indicates the number of credit hours a student should take in each of the teaching areas, as selected from the list of technical electives below.

	II	III	IV
I. Laboratory of Industries	6	6	9
II. Energy and Transportation	12	3	6
III. Graphic Communication	3	12	6
IV. Manufacturing and Construction	3	6	12

## TECHNICAL ELECTIVES FOR BOTH TEACHER EDUCATION MAJORS AND TECHNOLOGY MAJORS

### II—Energy and Transportation

- IA 311 Communications Electronics
- IA 312 Computer Technology
- IA 313 Electrical Construction
- IA 321 Automotive Systems
- IA 322 Automotive Diagnosis and Tuneup
- IA 413 Instrumentation
- IA 414 Digital Electronics
- IA 423 Fluid Power
- IA 424 Fluid Power Systems

### III—Graphic Communication

- IA 332 Architectural Drawing and Design
- IA 333 Descriptive Geometry
- IA 342 Photo-Offset Lithography
- IA 343 Communications Design
- IA 434 Industrial Production Illustration
- IA 435 Systems Analysis and Design
- IA 444 Photographic Reproduction
- IA 445 Color Reproduction Theory

### IV—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
- IA 452 Metallurgy and Metrology
- IA 472 Materials Testings (Metals/Wood)

**Special Problems: Up to 3 credit hours.**

## REQUIRED OF TECHNOLOGY MAJORS

### Business Administration and Economics: 24 semester hours\*

Required core: 12 semester hours  
Electives specialization: 12 semester hours (see options below)

### Technology: 51 semester hours

Required core: 27 semester hours  
Electives specialization: 24 semester hours

\*ECON 101 in lieu of EDU 150 -  
Preprofessional Experiences

### Technology Area Options

Technology majors may plan and develop a program to meet individual interests and needs in both the business and technical areas with adviser approval.

The business component consists of 24 hours. Twelve are required core and 12 are elective. Four options for specialization are identified and recommended.

#### CORE (12 required):

ECON 101 Economics	3
ECON 102 Economics	3
BUS 101 Accounting	3
BUS 340 Elements of Industrial Mgt.	3

#### OPTION 1 - General:

BUS 102 Financial and Mgt.	
Accounting	3
BUS 320 Business Finance	3
BUS 360 Marketing	3
BUS 390 Computers in Business	3

#### OPTION 2 - Personnel Management:

BUS 102 Financial and Mgt.	
Accounting	3
BUS 346 Personnel Management	3
BUS 348 Industrial Relations	3
ECON 320 Labor Economics	3

#### OPTION 3 - Accounting:

BUS 301 Accounting	3
BUS 302 Accounting	3
BUS 305 Cost Accounting	3
BUS 320 Business Finance	3

#### OPTION 4 - Marketing and Distribution:

ECON 399 Regional Economics	3
BUS 360 Marketing	3
BUS 363 Advertising	3
BUS 346 Personnel Management	3

The technical component consists of 51 hours. Twenty-seven are required core and 24 are elective. A minimum of 6 hours is recommended from each of the three major areas of Energy and Transportation, Manufacturing and Construction, and Graphic Communications.



## INDUSTRIAL ARTS CURRICULUM

Freshman Year		<i>Credit Hours</i>
	English (Elective)	6
	Mathematics (Elective)	6
	Science (Elective)	6
	Physical Education	1
EDU 150	Pre-Professional Field Experiences	2
IA 130	Graphic Communication	3
IA 100	Manufacturing and Construction	3
IA 101	Energy and Transportation	3
IA 231	Technical Graphics	3
<b>Sophomore Year</b>		
	Fine and Applied Arts (Elective)	6
	Humanities (Elective)	3
IA 210	Electronics Technology	3
IA 220	Power Technology	3
IA 241	Graphic Arts Technology	3
IA 250	Metal Technology	3
IA 260	Wood Technology	3
IA 270	Modern Industry	3
	Social Science (Elective)	3
<b>Junior Year (Teacher Education Majors)</b>		
	Social Science (Electives)	3
	Area 5: General (Electives)	6
EDU 335	Educational Psychology	3
IAED 380	Curriculum Materials in Industrial Arts	3
IAED 381	Methods of Teaching Industrial Arts	3
	Industrial Arts Technical (Electives)	12
<b>Junior Year (Technology Majors)</b>		
	Social Science (Elective)	3
	Area 5: General (Elective)	6
ECON 102	Economics	3
BUS 101	Accounting	3
BUS 340	Elements of Industrial Management	3
	Industrial Arts Technical (Elective)	12
<b>Senior Year (Teacher Education Majors)</b>		
EDU 324	Student Teaching and Seminar	12
	General Education (Electives)	6
	Industrial Arts Technical (Electives)	9
	Special Problems (Elective)	2
<b>Senior Year (Technology Majors)</b>		
	Business and Administration (Elective)	3
	Business and Administration (Elective)	3
	Business and Administration (Elective)	3
	Business and Administration (Elective)	3
	Industrial Arts Technical (Electives)	12
	General Education (Elective)	6

### Summary Information

Required for graduation: Teacher education,  
122 credits; Technology, 124 credits.

### **Clinical Training in Manual Arts Therapy**

An opportunity is provided junior and senior Industrial Arts majors to participate in a clinical training program provided by Veterans Administrations Hospital, Brockton, Massachusetts. Two hundred and forty hours, or six weeks, to be spent at hospital, at convenience of student. Transportation not furnished, but room and board provided at no expense. Consult program coordinator for further details.

### **COURSES IN INDUSTRIAL ARTS ENERGY AND TRANSPORTATION**

#### **IA 101 Energy and Transportation**

Energy and Transportation is designed as an introduction to the worlds of energy, power, and transportation. The emphasis of this course is on understanding concepts of power and transportation—past, present, and future—through research and basic laboratory experiences. Students are involved with laboratory experiences which illustrate the concepts of hydraulic, electric, and mechanical transmission of power. Prerequisite: Permission of instructor. Cr 3.

#### **IA210 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. Prerequisite: Permission of instructor. 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. Prerequisite: Permission of instructor. Cr 3.

#### **IA311 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. Cr 3.

#### **IA312 Computer Technology**

Study of the function and applications of programmable calculators, microprocessors, and digital computers. Laboratory experiences relating to digital electronics and using the computing facilities of the University. Prerequisite: IA 210. Cr 3.

#### **IA313 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. Cr 3.

#### **IA321 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 indepth 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 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. Cr 3.

### **IA 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. Prerequisite: Permission of instructor. Cr 3.

### **IA 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.

## **GRAPHIC COMMUNICATION**

### **IA 130 Graphic Communication**

Introduction to the concepts of effective industrial communications. Translating ideas and images through understanding and applying the elements of graphic design, shape and dimension, layout and image assembly, and reproduction techniques. Prerequisite: Permission of instructor. 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. Multi-view projections, pictorial techniques, primary and secondary auxiliaries, detail and assembly working drawings, and reproduction techniques. Contemporary industrial practices and processes. Prerequisite: Permission of instructor. 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 letterpress, offset lithography, and screen printing with related experiences in rubber stamp making, block printing, embossing, and photo enlarging. Prerequisites: IA 130 and permission of the 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 231 or equivalent and 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 application. Prerequisite: IA 231 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: Permission of instructor. Cr 3.

### **IA 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 231 or permission of instructor. Cr 3.

### **IA 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 231 and permission of instructor. Cr 3.

#### **IA 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 342 or permission of instructor. Cr 3.

### **MANUFACTURING AND CONSTRUCTION**

#### **IA 100 Manufacturing and Construction**

Basic concepts and common functions involved in both the production of manufactured goods and building construction are studied. Custom and line-production activities and model structures are utilized. Graphic communication concepts are included. Required of all first-year students. Prerequisite: Permission of instructor.

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. Prerequisite: Permission of instructor.

Cr 3.

#### **IA 260 Wood Technology**

A basic course in wood technology, including wood properties, basic hand and machine tool processes, assembly and finishing. Prerequisite: 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 and 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. Consideration is also given to plumbing. Group and individual problems and activities. Prerequisite: IA 250 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: Permission of instructor.

Cr 3.

#### **IA 371 Plastics Technology**

Pattern and mold design and construction; thermo-forming, injection-molding, reinforced plastics, blow molding, foam and plastisol forming. Theory and application of thermoplastic and thermo-set principles. Prerequisite: IA 250 or IA 260 and permission of instructor.

Cr 3.

**IA 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 and permission of instructor. Cr 3.

**IA 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 250 or 260 and permission of instructor.

Cr 3.

**INDUSTRIAL ARTS EDUCATION****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. Prerequisite: 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. Permission of instructor. Technical elective may be substituted.

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 full-year sequence prior to student teaching. Prerequisites: Basic technical core, IA 270, EDU 335 and 2.5 CPA. 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. Prerequisite: IAED 380.

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 Awareness has been identified by the U.S. Office of Education as the major thrust for education of our young people as well as adults.) Cr 3.

## VOCATIONAL TECHNICAL EDUCATION

Professor Berry (Coordinator); Associate Professor Carter.

A part-time Evening and Summer program designed to:

- a) prepare instructors for the teaching of vocational-industrial and/or technical subjects in the high schools and post-secondary schools of Maine. Candidates must be eligible for vocational teaching certification. (EDUCATION)
- b) provide non-teaching majors an opportunity to pursue a collegiate program leading to a baccalaureate degree which recognizes trade or technical competency and provides knowledge of business and industry leading to supervision, technician, or middle management positions. (TECHNOLOGY)

A B.S. degree with a major in Vocational-Technical Education or in Technology will be granted upon successful completion of the following requirements:

### Curriculum Requirements

One hundred and twenty (120) semester hours of credit are required for the bachelor's degree. A minimum of one year, or 30 semester hours, **exclusive of work trade experience credits**, must be earned at this institution.

### Occupational

A. General Education .....	45 credit hours
Humanities	6
Fine and Applied Arts	6
Science and Mathematics	15
Social Sciences	3
ECON 101 Economics	3
IVE 360 Modern Industry	3
Area 5: General	9
B. Professional Education (Teaching Majors Only) .....	27 credit hours
IVE 305 Curriculum Development in Vocational Education	3
EDU 333 Human Growth and Development	3
IV 300 Occupational and Trade Analysis	3
IVE 310 Methods and Materials of Instruction	3
IVE 340 Shop Organization and Management	3
IVE 350 Philosophy of Vocational Education	3
IVE 411 Measurement and Evaluation (Vocational)	3
EDU 324 Student Teaching/Clinical Experiences (Required for all candidates with less than three years of successful teaching experience)	6
C. Area of Specialization (Occupational) .....	45 credit hours
IVE 400 Occupational Experience, verified (Credits will be determined by rating plan)	maximum
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)	
Recommended Electives	
IVE 315 Learning and Programmed Instruction	3
IVE 320 Coordination of Cooperative Education	3
IVE 325 Conference Learning	3
IVE 330 Principles and Practices of Vocational Guidance	3

IVE 420	Trends in Vocational Education	3
IVE 450	Local Administration and Supervision of Vocational Education	3
IVE 455	Development of Technical Education	3
IVE 460	Independent Study in Vocational Education	3
EDU 310	Preparation of Instructional Materials	3
EDU 314	Curriculum (Education)	3

### Technology Major

(To be taken in place of professional education) ..... **27 credit hours**

Technology majors may plan and develop a program to **meet individual interests and needs** in both the business and technical areas with adviser approval.

The business component consists of twenty-seven (27) hours fifteen (15) are required core and twelve (12) are elective). Four (4) options for specialization are identified and recommended.

<b>Core (15 required)</b>			
IVE	300	Occupational & Trade Analysis	3
IVE	325	Conference Leading	3
ECON	102	Economics	3
BUS	101	Accounting	3
BUS	340	Elements of Industrial Mgt.	3
			<u>15</u>
<b>Option 1 General</b>			
BUS	102	Financial & Mgt. Accounting	3
BUS	320	Business Finance	3
BUS	360	Marketing	3
BUS	390	Computers in Business	3
			<u>12</u>
<b>Option 2 Personnel Management</b>			
BUS	102	Financial & Mgt. Accounting	3
BUS	346	Personnel Management	3
BUS	348	Industrial Relations	3
ECON	320	Labor Economics	3
			<u>12</u>
<b>Option 3 Accounting</b>			
BUS	301	Accounting	3
BUS	302	Accounting	3
BUS	305	Cost Accounting	3
BUS	320	Business Finance	3
			<u>12</u>
<b>Option 4 Marketing and Distribution</b>			
ECON	399	Regional Economics	3
BUS	360	Marketing	3
BUS	363	Advertising	3
BUS	346	Personnel Management	3
			<u>12</u>

## **COURSES IN VOCATIONAL TECHNICAL EDUCATION**

### **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 315 Learning and Programmed Instruction**

The first application of the laboratory and scientific study of the learning process, including the principles of learning which are derived from experimental study and which have provided a foundation for advances in the techniques of learning. Cr 3.

### **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 the 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 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, and controlling vocational programs on the local level. Cr 3.

### **IVE 452 Heat Treatment and Inspection**

A study of the origin, nature, and properties of metals. Specimen mounting and microscopic identification of their properties. Experimentation in various heat treatment processes and microscopic observation of these. Selection, care, maintenance, and use of measuring and testing equipment. Application of this equipment in metal manufacturing. Cr 3.

### **IVE 453 Computers in Industry and Technology**

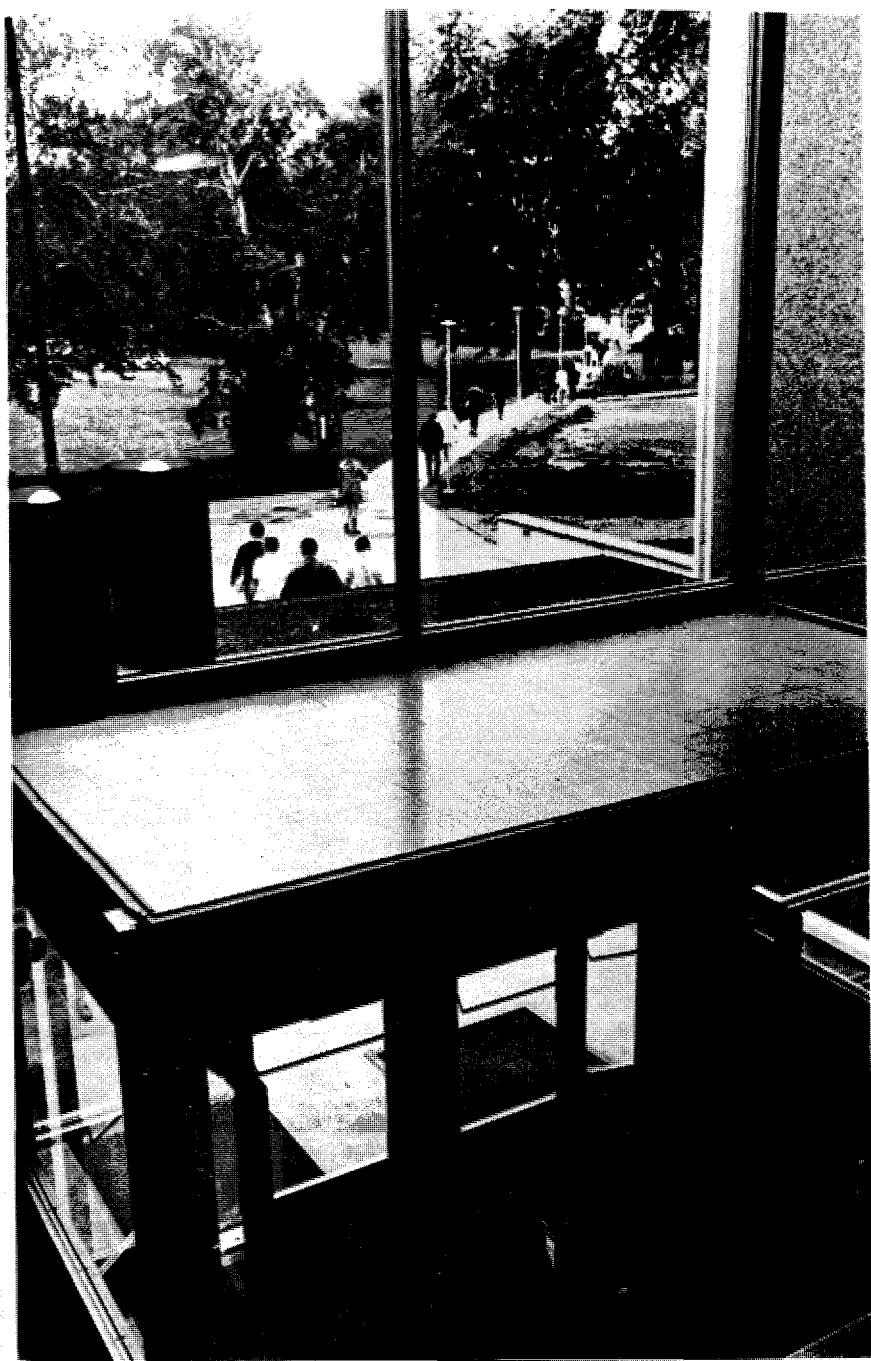
Use of digital computer techniques in industry. Introduction to FORTRAN Programming and utilization of the language to study the design of the IBM 360 system. Specialized applications for process control and product testing will be considered as well as use of desk and mini computers. Cr 3.

### **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 adviser. Cr 3.



## **SCHOOL OF BUSINESS AND ECONOMICS**

### **DEAN**

John W. Bay

### **Department of Business Administration**

Chairman: D. Bradlee Hodson, 118 Bedford St., Portland.

Professors Findlay, Fitzpatrick, Waters; Associate Professors Hall, Jagolinzer; Assistant Professors B. Andrews, Chandler, Hodson, Houlihan, Manck; Lecturer Plowman.

### **Department of Associate Business Administration**

Chairman: Richard L. McKeil, 118 Bedford St., Portland.

Associate Professors S. Andrews, Annett, McKeil, L. Taylor; Assistant Professor Gold.

### **Department of Economics**

Acting Chairman: Robert D. Witherill, 400-G Bailey Hall, Gorham.

Professor Durgin; Associate Professors Bay, McMahon, Witherill (on leave Spring Semester, 1977); Assistant Professor Bien.

The School of Business and Economics 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.

### **TWO-YEAR ASSOCIATE OF SCIENCE PROGRAM IN BUSINESS ADMINISTRATION**

This program 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 the four-year business administration program at this University or at many other institutions.

While the program emphasizes business, it contains some courses in liberal studies such as English composition, literature, a social science, human relations, and mathematics. Options within the associate program include Management-Accounting; Hotel, Motel, and Restaurant Management; and Real Estate (offered only in CED), and a banking option offered in cooperation with the American Institute of Banking.

The Hotel, Motel, and Restaurant Management option is a cooperative and coordinated two-year Associate Degree program developed jointly by Southern Maine Vocational-Technical Institute and the Department of Associate Business Administration at the University. The program draws upon the core business curriculum of this University, the culinary arts curriculum of SMVTI, and industry advisers for the program. The program is flexible and will respond to the developing needs of the hospitality and tourist industry in Maine. The program is designed to allow Maine people to assume positions of responsibility in the industry. Graduates would be prepared for such diverse jobs as motel managers, food and beverage managers, stewards, reservations managers, restaurant managers, convention and special events coordinators, hotel innkeepers, general managers, and other supervisory or mid-management positions.

Students may enter the Hotel, Motel, and Restaurant Management program at either SMVTI or UMPG. If admitted to the UMPG program, the student, upon successful completion of sixty (60) credit hours, will receive an Associate of Science degree in Business Administration with a major in Hotel, Motel, and Restaurant Management. UMPG students take approximately three semesters at UMPG and one semester at SMVTI.

The banking option is a cooperative associate degree program between the Portland Chapter of the American Institute of Banking and UMPG. The program is primarily intended to meet the needs of members of the American Institute of Banking; normally, all students who attend AIB courses must be members of the Chapter. However, provision will be made for attendance by a limited number of non-AIB members. The program consists of a combination of AIB and UMPG courses. AIB courses are offered by the Portland Chapter at various bank locations, utilizing instructors from the banking community. UMPG courses are offered in the evening through CED and YCCCS.

#### THE FOUR OPTIONS OFFERED IN THE ASSOCIATE DEGREE PROGRAM

Upon completion of one of the following 60-hour programs with a grade point average of 2.0, a student will be awarded the degree of Associate of Science in Business Administration.

Graduates are equipped for employment at the junior management level in many fields

of business. Some fields of business that graduates have entered are sales, retailing, banking, finance, management trainee programs, and accounting. Students 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 business administration program. Students interested in transferring to the four-year business administration program at UMPG should contact the Dean to determine how courses taken in the associate program apply to the four-year program.

Any high school graduate may apply for admission to the two-year program. A college preparatory course is not required. Applicants should complete the regular University of Maine application form and specify the Associate in Business Administration program. Candidates must also complete the College Entrance Examination Board's general Scholastic Aptitude Test.

Students admitted to the Associate Degree Program pursue one of the following options during their two years:

#### Management-Accounting Option

##### First Year

BUS 011 & BUS 012	Principles of Accounting	6
ECON 011 & ECON 012	Principles of Economics	6
ENG 011	Composition	3
ENG 120	Introduction to Literature	3
BUS 095	Business and Society	3
COM 150	Business Communication	3
THE 170, or a Social Science	Public Speaking	3
MS 010 & MS 011 or MS 109 & MS 110	Elementary & Intermediate Algebra or Linear Systems Elementary Math Analysis	6

##### Second Year

BUS 040	Industrial Management	3
BUS 060	Marketing	3
BUS 043	Problems of Small Business	3
BUS 080	Business Law	3
BUS 093	Human Relations in Business	3
BUS 064 or BUS 067	Retailing Sales Management	3
BUS 090	Introduction to Computers in Business	3
ENG 019	Expository Writing	3

BUS 301 or BUS 020	Intermediate Accounting Business Finance I	3
BUS 302 or BUS 021 or BUS 030 or BUS 190	Intermediate Accounting Business Finance II Investment Management Personal Finance	3

Students wishing to take MS 109/110 or MS 211/212 in the second year may use these as substitutes for BUS 043 and ENG 019. Students who desire to take one or two Real Estate courses may substitute these for BUS 064 or 067; or BUS 016 or 021 or 030.

#### **Real Estate Option—Offered Only in CED**

##### **First Year**

BUS 011 & BUS 012	Principles of Accounting	6
ECON 011 & ECON 012	Principles of Economics	6
ENG 011	Composition	3
ENG 120	Introduction to Literature	3
BUS 080	Business Law	3
COM 150,	Business Communication	3
THE 170, or a Social Science	Public Speaking	3
MS 010 & MS 011 or MS 109 & MS 110	Elementary & Intermediate Algebra or Linear Systems Elementary Math Analysis	6

##### **Second Year**

BUS 040	Industrial Management	3
BUS 060	Marketing	3
BUS 022	Real Estate Law	3
BUS 023	Real Estate Practice	3
BUS 024	An Introduction to Appraising Real Property	3
ENG 019	Expository Writing	3
BUS 043	Problems of Small Business	3
BUS 090	Introduction to Computers in Business	3
BUS 093	Human Relations in Business	3
One of the following courses:		
BUS 095	Business and Society	
BUS 301	Intermediate Accounting	
BUS 020	Business Finance I	3
BUS 064	Retailing	
BUS 067	Sales Management	

#### **Hotel, Motel and Restaurant Management—Option**

##### **First Year**

BUS 011 & BUS 012	Principles of Accounting	6
ECON 011 & ECON 012	Principles of Economics	6
ENG 011	Composition	3
THE 170, or a Social Science	Public Speaking	3
ENG 019	Expository Writing	3
BUS 095	Business and Society	3
MS 010 & MS 011 or MS 109 & MS 110	Elementary & Intermediate Algebra or Linear Systems Elementary Math Analysis	6

## Second Year

### Taken at SMVTI—Fall Semester

Front Office	3
Hotel Orientation	3
Food Fundamentals	3
Food and Beverage Control	3
Seminar in Management	3

### Spring Semester at Portland Campus

BUS 040	Industrial Management	3
BUS 060	Marketing	3
BUS 043	Problems of Small Business	3
BUS 020	Business Finance I	3
BUS 093	Human Relations in Business	3

### Banking Option — offered through CED and the American Institute of Banking.

#### Taken at UMPG

ECON 011/012	Principles of Economics	6
BUS 011/012	Principles of Accounting	6
BUS 030	Investment Management	3
BUS 060	Marketing	3
BUS 080	Business Law	3
BUS 093	Human Relations in Business	3
ENG 011	Composition	3
ENG 019	Expository Writing	3
THE 170	Public Speaking	3
MS 010/011	Elementary & Intermediate Algebra or	6
MS 109/110	Linear Systems & Elementary Analysis	

#### Taken with AIB

Principles of Bank Operations	3
Fundamentals of Bank Data Processing	3
Business Financial Management	3
Money and Banking	3
Installment Credit or Home Mortgage Lending	3

#### Taken at UMPG or with AIB

AIB	Bank Management or	3
BUS 040	Elements of Industrial Management	
AIB	Savings & Time Deposit Banking or	3
AIB	Trust Functions & Services or	
BUS 043	Problems of Small Business	

TOTAL CREDIT HOURS    60

AIB courses that are part of this curriculum will be treated as transfer credit toward the associate degree at UMPG provided that the student has received a grade of "C" or better.

## **FOUR-YEAR UNDERGRADUATE PROGRAMS IN BUSINESS AND ECONOMICS**

The primary objective of the undergraduate program in Business Administration is to develop the student's abilities to assume the responsibilities of business management. The program is aimed at providing the broad training necessary for successful business management in a rapidly changing economy. No attempt is made to provide detailed specialized training in particular business tasks. The program aims, rather, at developing skills and attitudes of mind that will enable the student to cope successfully with the changing problems of business 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 a knowledge of certain fields which are particularly relevant to the study of business management. This is referred to as the "core" program and includes basic courses in accounting, introduction to computers, economics, finance, business law, marketing, and management. Third, the student undertakes to acquire a deeper knowledge of the selected major field. This is accomplished by taking 21 credit hours beyond the core program.

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 the social control of business.

In addition to the traditional four-year programs in accounting, business administration, and economics, the following options are available to the student:

### **COOPERATIVE EDUCATION PROGRAM**

The School of Business and Economics offers a Cooperative Education Program in which students, while working in business or industry, may earn a maximum of 15 academic credits. The program consists of seven academic periods and three alternating related work experiences. This program combines the efforts of employers and educators in forming a meaningful educational experience in a wide range of areas which includes management, accounting, production and marketing. Firms engaged in the Cooperative Education Program represent fields such as banking, public utilities, 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 and Economics.

### **SMALL BUSINESS INSTITUTE**

The School of Business and Economics, and The Small Business Administration, a government agency, jointly sponsor a program, The Small Business Institute, whereby Juniors and Seniors provide management counseling to small area businesses. Under the program the students, working as a team, counsel and advise, in cooperation with a faculty adviser and representatives of the SBA, various actual businesses within Southern Maine.

The program provides an opportunity for relevant practice application of academic principles. Students may be involved in consulting in areas such as accounting, finance, management and marketing.

The course is offered as "Applied Study" and carries three hours of academic credit. Preference is given to Seniors, but Juniors are considered. Interested students should contact Mr. Donald Annett, Project Director.

# **JOINT PROGRAMS WITH THE COLLEGE OF EDUCATION AND DEPARTMENT OF MATHEMATICS**

In cooperation with the College of Education, the School of Business and Economics 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.

## **GENERAL GRADUATION REQUIREMENTS OF THE SCHOOL OF BUSINESS AND ECONOMICS FOR ALL CANDIDATES FOR A B.S. DEGREE**

All students are required to complete 120 hours.

To be eligible for a B.S. degree in the 4-year programs in the School of Business and Economics, the student must have attained a cumulative grade point average of 2.0 or better:

- a. For all courses taken in 4-year programs at the University, and
- b. For all 4-year courses in business and economics.

## **ADDED REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE IN BUSINESS ADMINISTRATION**

- |  |                 |
|--|-----------------|
| A. General Foundation Courses                        | 48 credit hours |
| Twelve hours of Humanities (Area 1)                  |                 |
| Six hours of Fine and Applied Arts (Area 2)          |                 |
| Twelve hours of Social Sciences (Area 4)             |                 |
| Six hours from Area 5: General                       |                 |
| Twelve hours of Mathematics (Area 3) as noted below: |                 |
| MS 109 Linear Systems                                |                 |
| MS 110 Elementary Mathematical Analysis              |                 |
| MS 211 Probability                                   |                 |
| MS 212 Statistics                                    |                 |
| B. Core Requirements in Business and Economics       | 30 credit hours |
| ECON 101 Principles of Economics I                   |                 |
| ECON 102 Principles of Economics II                  |                 |
| One 300 level ECON course                            |                 |
| BUS 101 Principles of Financial Accounting           |                 |
| BUS 320 Business Finance                             |                 |
| BUS 340 Elements of Industrial Management            |                 |
| BUS 360 Marketing                                    |                 |
| BUS 380 Business Law                                 |                 |
| BUS 385 Business Economics                           |                 |
| BUS 390 Introduction to Computers in Business        |                 |
| C. Major Field Requirements                          | 21 credit hours |
| Accounting Major                                     |                 |
| BUS 301 Intermediate Accounting I                    |                 |
| BUS 302 Intermediate Accounting II                   |                 |
| BUS 305 Cost Accounting                              |                 |
| BUS 310 Advanced Accounting I                        |                 |
| BUS 311 Advanced Accounting II                       |                 |
| BUS 313 Federal Tax Reporting                        |                 |
| BUS 410 Auditing                                     |                 |



Business Administration Major  
 BUS 102 Financial and Management Accounting  
 BUS 330 Investment Management  
 BUS 370 Managerial Marketing  
 BUS 450 Business Management and Policy  
 BUS 452 Dynamics of Organization and Behavior  
 Six hours of Business or Economics Electives

D. Electives

21 credit hours

### **ADDED REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE IN ECONOMICS**

A. General Foundation Courses

36 credit hours

Six hours of Humanities (Area 1)  
 Six hours of Fine and Applied Arts (Area 2)  
 Six hours of Social Sciences (Area 4)  
 Six hours from Area 5: General  
 Twelve hours of Mathematics (Area 3) as noted below:  
 MS 109 Linear Systems  
 MS 110 Elementary Mathematical Analysis  
 MS 211 Probability  
 MS 212 Statistics

(An optional, more rigorous mathematics sequence is available to those students who desire it. MS 152, MS 153, and MS 252 will substitute for MS 109 and MS 110. Students will still be required to take MS 211 and MS 212. Students who only wish to take MS 152 and MS 153 can substitute those two courses for MS 109 and MS 110. They still must take MS 211 and MS 212. An optional minor in mathematics is also available.)

It is recommended that students who have writing deficiencies take either ENG 001, Writing Laboratory, or ENG 100, College Writing. Students having difficulty in communication should take THE 170, Public Speaking.

B. Course Requirements in Economics and Business

36 credit hours

Fifteen hours of core requirements:

ECON 101 Principles of Economics I  
 ECON 102 Principles of Economics II  
 ECON 301 Macroeconomic Analysis  
 ECON 302 Microeconomic Analysis  
 BUS 101 Principles of Financial Accounting

Completion of at least 21 additional hours in economics courses, which may include BUS 385, or HIST 338. ECON 150 and ECON 201 are not applicable for major credit in business and economics.

### **REQUIREMENTS FOR AN ECONOMICS MAJOR OR AN ECONOMICS MINOR FOR STUDENTS IN THE COLLEGE OF EDUCATION**

#### **Criteria For Admission and Retention of Students**

Admission to the Education program by the College of Education plus a minimum of "C" grades in Economics courses.

#### **Elementary Education — Economics Minor**

ECON 101 & 102	Principles of Economics	6
ECON 201	Current Economic Problems	3

ECON 350	Comparative Economic Systems	3
ECED 300	Economic Concepts and Resource Materials for Educators	3
Additional Economic Electives		6
		<hr/>
		Total Credits 21

Economics Minors will also meet all other requirements of the University and the College of Education.

### **GENERAL GRADUATION REQUIREMENTS OF THE SCHOOL OF BUSINESS AND ECONOMICS FOR ALL CANDIDATES FOR THE B.S. DEGREE**

All students are required to complete 120 hours. To be eligible for a B.S. degree in the 4-year programs in the School of Business and Economics, the student must have attained a cumulative grade point average of 2.0 or better: (a) for all courses taken in 4-year programs at the University and (b) for all 4-year courses in business and economics.

### **JOINT PROGRAMS WITH THE COLLEGE OF EDUCATION AND DEPARTMENT OF MATHEMATICS**

In cooperation with the College of Education, the School of Business and Economics 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.

### **MASTER OF BUSINESS ADMINISTRATION**

Since the fall of 1964 the School of Business and Economics has offered a master's degree in Business Administration. The M.B.A. program is designed to give students a broad preparation in business administration upon which men and women may build executive careers. To this end, the curriculum is designed to give each student a proper orientation toward business, to develop skills in using tools of analysis, to provide an understanding of the functional areas of business, and to develop a capacity for understanding and adapting to technological and social change. Candidates who enter with no previous college work in business will typically need from one to one and one-half years to complete undergraduate prerequisites in business administration. The graduate work may be completed in one calendar year.

Requirements for the M.B.A. degree consist of undergraduate foundation

courses of thirty-three semester hours, which are apportioned in the areas of business administration, economics, and mathematics as listed below. These courses must be completed prior to the completion of the first twelve hours of graduate courses. This stipulation means that a student may take some graduate courses prior to completing the undergraduate work in cases where the prerequisites for specific graduate courses are satisfied. The graduate program comprises thirty hours of graduate courses, including twenty-one hours of required core courses and nine hours of electives, selected from the many offerings of the M.B.A. program.

Most of the courses are offered in the evening to facilitate students whose career or family responsibilities prevent their attending a day program. The course offerings and scheduling are directed to these students. Entry in the M.B.A. program is

possible at the beginning of either semester or the summer session. There is no thesis requirement, but research and writing are required throughout the graduate program. These writings often develop from solutions to case problems which are used in many of the courses.

## ADMISSION

Application for admission to the M.B.A. program should be made to the Dean of the Graduate School. Admission to this program requires the recommendation of the M.B.A. Graduate Admissions Committee at the University, and the approval of the Dean of the Graduate School.

To be admitted, an applicant must have received a baccalaureate degree or its equivalent and must show promise of ability to pursue advanced study and research. This requirement is determined by the M.B.A. Graduate Admissions Committee using the test score (GMAT), previous college or university work, and the letters of recommendation. All applicants for the M.B.A. program must submit scores obtained on the Graduate Management Admission Test which is administered by the Educational Testing Service, Princeton, New Jersey.

For regular admission, the minimum GMAT test score and undergraduate grade point average (GPA) from an accredited school are 450 and 2.5 (4.0 system) or 450 and 2.75 for the junior, senior years. A weighted average of the GMAT score and the GPA may be used with a minimum total of 950 points based on the following formula: 200 times the undergraduate GPA (4.0 system) plus the GMAT score; or at least 1000 points based on the formula: 200 times upper-division GPA (4.0 system) plus the GMAT score. Conditional admission (described below) may be possible for applicants whose scores are below those prescribed for regular admission.

An application is not complete until all the required transcripts, GMAT scores, and letter of recommendation are on file in the Office of the Graduate School. Applications should be received by the Graduate School at least six weeks before the date of

registration for the semester or summer session in which the applicant wishes to begin his study. All application material becomes the property of the University.

## Status

An applicant's admission status will be one of the following:

**Regular.** Granted to students who have a record of high scholarship in their academic field and about whom there is no question of ability to carry on graduate study. If the applicant has not completed all of the required undergraduate courses, the applicant will be advised in the letter of acceptance that these courses must be completed prior to completing twelve hours of graduate credit.

**Conditional.** Students whose academic record does not show high scholarship, but are deemed by the Graduate Admissions Committee to show promise of success in the M.B.A. program, may be admitted on a conditional basis. Conditional basis admission may also be used under other circumstances. The letter of acceptance will contain the conditions which must be met before the student can be reclassified as Regular. If the applicant has not completed all of the required undergraduate courses, the applicant will be advised in the letter of acceptance that these courses must be completed prior to completing twelve hours of graduate credit.

**Special.** This status is assigned to those in the general category of Non-degree Students. Special status is obtained by submitting a request to the Graduate Admissions Committee with supporting evidence of ability to perform graduate level work. Students granted this status will receive a grade but credit will not normally be granted towards the M.B.A. degree at the University.

**Transient.** A person enrolled in any other graduate program at the University or another school may enroll in graduate business administration courses if the required prerequisite courses have been taken. A request for transient status shall be made to the chairman of the M.B.A. program.

## **MASTER OF BUSINESS ADMINISTRATION**

### **Undergraduate Courses Required**

Accounting	(6 hours)
Business Law	(3 hours)
Calculus	(3 hours)
Economics	(9 hours)
Finance	(3 hours)
Management	(3 hours)
Marketing	(3 hours)
Statistics	(3 hours)

Candidates for the M.B.A. degree must complete twenty-one hours of required graduate courses and nine hours of graduate elective courses prior to the completion of their formal graduate degree program.

### **Required Graduate Courses**

- BUS 510 Operations Research
- BUS 520 Industrial Relations
- BUS 530 Senior Executive Decision Making
- BUS 540 Managerial Accounting
- BUS 550 Managerial Economics
- BUS 560 Financial Management
- BUS 570 Marketing Management

### **Elective Graduate Courses**

- BUS 523 Collective Bargaining
- BUS 527 Human Relations in Industry
- BUS 533 Production Management
- BUS 537 Organizational Behavior in Business
- BUS 553 Business Cycles and Forecasting
- BUS 563 Investment Management
- BUS 573 Market Research and Management
- BUS 583 Business Logistics
- BUS 593 Independent Readings and Research in Business and/or Administration

**For further information and applications, telephone 773-2981, Extension 203, or write:**

Chairman, M.B.A. Program  
School of Business and Economics  
University of Maine at  
Portland-Gorham  
96 Falmouth Street,  
Portland, Maine 04103

## **M.B.A. GRADE POLICY**

In order to receive graduate degree credit for a course, a student must be registered in the graduate program as a graduate student. Generally, graduate credit will not be granted retroactively for graduate work which was taken as a special student.

All courses completed for the M.B.A. must be passed with a minimum grade of "C". A grade of "C" will carry graduate degree credit. However, no student will be allowed to apply more than six hours of "C" grades towards any requirements of the M.B.A. taken after being admitted to the program.

No graduate student may repeat the same course after receiving a grade of "C" or "B" in a course to improve his grade point average.

If a student receives a grade of "D" in a required course, the student must take the course over again. If a "D" grade is received in an elective course, the student may or may not elect to retake the elective course. Whether the course is required or an elective, the "D" grade will be included in the student's grade point average. If the course is repeated, the student must pass the course with a minimum grade of "C". When a course with a "D" grade is repeated the new grade as well as the original "D" grade is figured in the grade point average.

The basis for automatic dismissal is:

The equivalent of three "Cs" or below.  
The equivalent of two "Ds" or one "F".

A student enrolled on a conditional basis must obtain a grade point average of 3.0 or better by the time of completion of fifteen hours of graduate courses. At this point, the student must also have satisfied the condition under which the student was admitted to the program. If one or the other of these requirements is not met, the student will be dismissed from the program. If at any time during the first fifteen hours the conditional student's grade point average falls below 3.0, the student will be placed on probation. The probational status must be removed within one

academic year or by the completion of fifteen hours of graduate courses, whichever comes first, or the student will be dismissed from the program.

A regular student whose grade point average falls below 3.0 will be automatically placed on a probational status. The student will have nine semester hours in which to bring the grade point average back to the required 3.0. Students who fail to do this, will be dismissed from the program.

A student who has completed the program of study must have a grade point average of 3.0 to receive the M.B.A. degree. Any student whose grade point average falls below 2.0 at any time will automatically be dismissed from the program. Since the grade for a single course cannot be considered an average, this rule will be applied when the student's grades for not less than two courses have become available.

### **Transfer of Credit**

A student enrolled in the graduate business administration program may, after completing nine hours of graduate credit, apply to have graduate course credit transferred from other institutions. Generally courses taken while enrolled as a graduate student at other institutions will be accepted when work is "B" grade or better in courses corresponding to those offered by the University and if applicable to the student's program of study.

If students relocate from the Portland area, they may apply to continue their program at another graduate school of business and have the degree granted by the University. In any case involving transfer credit, a minimum of eighteen (18) hours must be taken at the University in order to obtain the M.B.A. degree from the University. All requests for transfer credit must be approved by the graduate admissions committee. When credit transfer is requested to complete any part of the M.B.A. program at the University it must be requested and approved prior to the enrolling in another graduate school of business and not after the course has been completed.

## **DESCRIPTIONS OF COURSES IN THE ASSOCIATE DEGREE PROGRAM**

### **BUS 011 Principles of Accounting I**

An introduction to the accounting cycle, working papers, and financial statements. A practical emphasis on accounting methodology with coverage of investing, depreciation of assets, and payrolls. Cr 3.

### **BUS 012 Principles of Accounting II**

An introduction to owner's equity, accounting principles, and cost. The proprietorship, partnership, and corporation accounting techniques are developed in a practical approach. Cr 3.

### **BUS 020 Business Finance I**

A study of the promotion, organization, and financing of the single proprietorship, partnership, and corporation. Such topics as fund flows, cash budgeting, and capital budgeting are examined. Prerequisites: ECON 011, ECON 012, and BUS 011. Cr 3.

### **BUS 021 Business Finance II**

An in-depth examination of selected topics in finance with advanced cases and problems used to relate these topics to the theories and principles developed. Cost of capital and other tools are developed for use in the decision-making process. Prerequisite: BUS 020. Cr 3.

### **BUS 022 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, easements, fixtures, land descriptions, mortgages, deeds, taxes, contracts, legal elements of brokerage relationship, and other legal applications are covered. This subject provides the first half of an approved course of study for those who wish to prepare for the State of Maine Real Estate Broker's License Examination. (Offered through C.E.D. only). Cr 3.

### **BUS 023 Real Estate Practice**

This course reviews the basic functions of the practicing real estate broker. Discussed are such topics as listing and sales procedures, financing, introduction to appraising, construction, taxation, advertising, state regulations on office operation, and real estate mathematics. This course is approved as the second part of an approved

course of study for those who wish to be eligible to take the State of Maine Real Estate Broker's License Examination. (Offered through C.E.D. only). Cr 3.

**BUS 024 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 through C.E.D. only). Cr 3.

**BUS 030 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: ECON 011, ECON 012, BUS 011, and BUS 012. Cr 3.

**BUS 040 Elements of Industrial 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: ECON 011 and ECON 012. Cr 3.

**BUS 043 Problems of Small Business**

Aspects of management that are uniquely important to small firms, in the interest of developing an understanding of the economic and social environment in which the small concern functions. Practice in decision-making on the same types of problems that small businessmen face. Problems relevant to small business operations in Maine will be stressed. Prerequisite: BUS 011. Cr 3.

**BUS 060 Marketing**

Problems of distribution for representative industrial and consumer goods, including merchandising policies, selection of distribution channels, price policies, and

advertising and sales promotion methods. Prerequisites: ECON 011, ECON 012, and BUS 011. Cr 3.

**BUS 064 Retailing**

Study of the retail distribution structure and of the problems involved in successful store operation under current conditions. Prerequisite: BUS 060. Cr 3.

**BUS 067 Sales Management**

Analysis of the problems facing marketing management in formulating sales policy and in managing the sales organization. Prerequisite: BUS 060. Cr 3.

**BUS 080 Business Law**

This course, an introduction to the study of business law, includes origins of the law, its nature and classification; contract law and the laws of agency and personal property are comprehensively dealt with. Cr 3.

**BUS 090 Introduction to Computer 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 093 Human Relations in Business**

Introduction to the behavioral sciences, emphasizing typical behavioral problems faced in business by employees and management. The laboratory method of teaching, involving the student in role playing and analyzing collected data, is supplemented with lectures, case analysis, and outside reading. Cr 3.

**BUS 095 Business and Society**

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.

**ECON 011 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 012 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.

**ENG 011 Composition**

Intensive practice in expository writing, with reading of illustrative material. Students in the ABA program will complete ENG 011 on a pass-fail basis or receive credit by examination. Cr 3.

**ENG 019 Expository Writing**

Training in clear expository writing of formal reports, business communications, and related material. Cr 3.

**ENG 120 Introduction to Literature**

(See English Department course offerings)

**MS 010 Elementary Algebra**

(See Mathematics Department course offerings) Cr 3.

**MS 011 Intermediate Algebra**

(See Mathematics Department course offerings) Cr 3.

**MS 109 Linear Systems**

(See Mathematics Department course offerings)

**MS 110 Elementary Mathematical Analysis**

(See Mathematics Department course offerings)

**MS 211 Probability**

(See Mathematics Department course offerings)

**MS 212 Statistics**

(See Mathematics Department course offerings)

**COM 150 Business Communication**

(See Communication Department course offerings)

**THE 170 Public Speaking**

(See Theatre Department course offerings)

**BUS 190 Personal Finance**

(See Business Administration — Four-year course offerings)

**BUS 301 Intermediate Accounting I**

(See Business Administration — Four-year course offerings)

**BUS 302 Intermediate Accounting II**

(See Business Administration — Four-year course offerings)

### UNDERGRADUATE COURSES IN THE FOUR-YEAR PROGRAM IN BUSINESS ADMINISTRATION

**BUS 101 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.

**BUS 102 Financial and Management Accounting**

(This course is designed for non-accounting majors.) It deals with the uses of accounting data for financial and management control. Emphasis is placed on the basic concepts associated with changes in financial position, consolidated financial statements, analysis of financial statements, income tax considerations, manufacturing operations, cost determinations and controls. Prerequisite: BUS 101. Cr 3.

**BUS 150 A Survey of Basic Accounting**

This course is designed for use primarily by those who wish to obtain a basic understanding of the accountant's approach to measuring and reporting upon the economic activity, resources, and obligations of a business. The use of this information in decision making is also discussed. Accounting topics are introduced and discussed under the assumption that the student has no prior knowledge of accounting. Cr 3.

**BUS 190 Personal Finance**

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 plannings. 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 elective credit). Cr 3.

**BUS 301 Intermediate Accounting I**

An intensive study of accounting theory including financial statements, the accounting for cash, temporary investments, receivables, inventories and current liabilities.

Prerequisite: BUS 101. Cr 3.

**BUS 302 Intermediate Accounting II**

The study of accounting theory including property, plant and equipment, intangible assets, long-term corporate capital, income tax allocation, pensions and leases.

Prerequisite: BUS 301. Cr 3.

**BUS 305 Cost Accounting**

Concepts and analytical procedures necessary in the generation of accounting data for management planning and control. Emphasis is on job order and process costing, use of standard costs, joint and by-product costing, direct costing and allocation of factory overhead. Prerequisite: BUS 101. Cr 3.

**BUS 306 Advanced Cost Accounting**

An extension of BUS 305. Theoretical issues and analytical techniques are explored relating to inventory control, capital budgeting, linear programming, forecasting, production mix and yield and other selected topics. Prerequisite: BUS 305. (Not offered every year.) Cr 3.

**BUS 310 Advanced Accounting I**

A study of accounting principles and theory related to changes in financial position; partnerships; consignment and installment sales; foreign currency transactions and receiverships. Prerequisite: BUS 302. Cr 3.

**BUS 311 Advanced Accounting II**

A study of accounting principles and theory related to home office and branch accounting; consolidations, mergers, parent

and subsidiary accounting; governmental and institutional accounting; estates and trusts. Prerequisite: BUS 302. Cr 3.

**BUS 313 Federal Tax Reporting**

Federal tax laws as they affect individuals, partnerships, corporations, and related topics. Prerequisite: BUS 101. 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 101 and ECON 102; BUS 101 and BUS 102 or BUS 301. Cr 3.

**BUS 330 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 Elements of Industrial 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: ECON 101 and ECON 102. Cr 3.

**BUS 346 Personnel Management**

The selection, training, and management of personnel in private and public business. 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. (Not offered every year.) 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 organized labor, 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. (Not offered every year.) Cr 3.



**BUS 360 Marketing**

Problems of distribution for representative industrial and consumer goods, including merchandising policies, selection of distribution channels, price policies, and advertising and sales promotion methods. Prerequisites: ECON 101 and ECON 102.

Cr 3.

**BUS 363 Advertising**

The place of advertising in the marketing program. Business cases are analyzed to determine those situations in which advertising may be profitably employed to stimulate primary and selective demand for industrial and consumer goods and services. Prerequisite: BUS 360.

Cr 3.

**BUS 368 Sales Management**

An analysis of the problems facing marketing management in formulating sales policy and in managing the sales organization. Prerequisite: BUS 360.

Cr 3.

**BUS 370 Managerial Marketing**

A managerial approach emphasizing the integration of marketing, as an organic activity, with other activities of the business firm. Study is directed toward recognition and appreciation of the problems encountered by top marketing executives in modern business, with a consideration of the policies and procedures that may be followed in their solution. By case analysis and consideration of current marketing literature, students are provided opportunities for development of abilities in solving marketing management problems. Prerequisite: BUS 360.

Cr 3.

**BUS 373 Marketing Research**

A consideration of marketing research as a tool in the solution of problems in production and distribution. Emphasis on problem formulation, exploratory research, research design, basic observational and sampling requirements, data analysis, interpretation, and sampling. Prerequisite: BUS 360.

Cr 3.

**BUS 380 Business Law**

This course, an introduction to the study of business law, includes origins of the law, its nature and classification; contract law and the laws of agency and personal property are comprehensively dealt with. Prerequisite: (Junior-Senior status).

Cr 3.

**BUS 381 Business Law II**

An opportunity to continue the study of Business Law and to complete the study of the Uniform Commercial Code. The course will be largely devoted to the law of negotiable instruments such as checks, notes, drafts, bill of lading and negotiable warehouse receipts. Prerequisite: BUS 380 or BUS 080 with permission of instructor.

Cr 3.

**BUS 385 Business Economics**

Application of economic analysis to concrete business situations. Emphasis on developing the student's ability to apply economic analysis to the solution of problems faced by business management. Prerequisites: ECON 101 and 102, BUS 101, and MS 110.

Cr 3.

**BUS 390 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 391 Computers and Decision Models in Business**

A more in-depth examination of the role of the computer as an aid in managerial decision-making. Emphasis on strengthening the student's ability to build and properly utilize computerized decision-models for problem-solving in business and industry. Prerequisites: BUS 390, 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 advance by the faculty. Open to Sophomores, Juniors, and Seniors in the School of Business and Economics with permission.

Cr 5.

**BUS 396 Cooperative Education—****Business Administration II**

Open to Sophomores, Juniors, and Seniors in the School of Business and Economics with permission. Cr 5.

**BUS 397 Cooperative Education—****Business Administration III**

Open to Juniors and Seniors in the School of Business and Economics with permission. Prerequisites: BUS 395 and 396. Cr 5.

**BUS 410 Auditing**

A study of auditing philosophy and theory relative to the examination of financial statements and other data. Internal control; auditing standards and procedures; and the legal and ethical responsibilities of the independent auditor. Prerequisite: BUS 301. Cr 3.

**BUS 420 Seminar on Current Developments and Practices in Accounting**

A review of APB opinions, FASB opinion, role of SEC in accounting. Current developments and problems - e.g., legal, social relevancy, etc., and information systems. Prerequisite: BUS 310, senior standing or permission of instructor. Cr 3.

**BUS 421 Investment Analysis**

A study of the various methods of predicting the price action of stocks and the stock market. It is based upon technical and theoretical methods of forecasting. It is primarily concerned with the Point and Figure technique. Prerequisite: BUS 320. Cr 3.

**BUS 422 Topics in Investment**

An in-depth study of each of the major topics investments. The course is based upon assigned readings, research, and discussion. Prerequisite: BUS 320. 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 101 and BUS 102; or BUS 301, BUS 340, and BUS 360. Cr 3.

**BUS 452 Dynamics of Organization and Behavior**

An analysis of business organization and the problems of administrators in an interpersonal setting. Primary emphasis is on

the findings of behavioral sciences which are particularly relevant to human relations and adjustment problems in modern organizations. Motivation, leadership, and organization theory as related to work and productivity, and associate topics are also covered. Prerequisite: BUS 340 or BUS 348 or permission of instructor. Cr 3.

**BUS 490 Independent Readings and Research in Business**

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. Cr 1-6.

**BUS 491 Applied Study**

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 and Economics in conjunction with agencies such as the Small Business Administration for an off-campus consultative experience in a business firm or other appropriate institutional setting. Prerequisites: Open to qualified Juniors and Seniors with approval. Cr 3.

**UNDERGRADUATE COURSES  
IN THE FOUR-YEAR PROGRAM  
IN ECONOMICS****ECON 101 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 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. Cr 3.

### **ECON 150 Elementary Economics**

An introduction to economic theory and practice as it applies to the U.S. economy, surveying both macroeconomic (national) and microeconomic (industrial) concepts. Topics discussed include the characteristics of the free enterprise system, income and employment determination, government involvement in economic activity, money and banking, the market mechanism, competition and monopoly, and antitrust policy. For non-majors. Cr 3.

### **ECON 201 Current Economic Problems**

An in-depth study and application of economic principles to some of the outstanding economic issues of society. These include: the economics of pollution control; problems of the city—including transportation, metropolitan organization, and finance; and problems of labor—such as automation and unemployment. (Not for major credit in either Economics or Business Administration.) Prerequisite: ECON 101. (Not offered every year.) 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 101 and ECON 102. Cr 3.

### **ECON 302 Microeconomic Analysis**

Price, income, and employment theory as tools in the study of economics. Prerequisites: ECON 101 and ECON 102. Cr 3.

### **ECON 310 Money and Banking**

An extensive examination of the operation and performance of the American banking and financial system. Includes a study of monetary theory and policy. Debt management and present international monetary problems are discussed briefly. Prerequisites: ECON 101 and ECON 102. Cr 3.

### **ECON 320 Labor Economics**

A discussion of labor in an industrial society serves as background for an examination of the origins and structure of

the labor movement, the theories of the labor movement, the theories of wages and labor's income, the process of collective bargaining in industrial relations, and the development of labor legislation and social security laws. Prerequisites: ECON 101 and ECON 102. (Not offered every year.) Cr 3.

### **ECON 330 Government and Business**

Public policy toward business; government powers and private rights; government aids; regulation of competition and monopoly; public enterprise. Prerequisites: ECON 101 and ECON 102. Cr 3.

### **ECON 350 Comparative Economic Systems**

The structures and operating principles of the major contemporary economic systems are examined and compared. Prerequisite: ECON 101. 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 101 and ECON 102. Cr 3.

### **ECON 360 Economic Development**

The theories and practices of interregional and international economic development. Special attention is given to development problems of emerging nations. Prerequisite: ECON 101. 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 101 and ECON 102. 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 101 and ECON 102. Cr 3.

### **ECON 381 State and Local Government Finance**

Development of the federal system; fiscal performance; intergovernmental fiscal relations; state and local revenue systems;

budgetary practices; state and local debt. Prerequisites: ECON 101 and ECON 102. (Not offered every year.) Cr 3.

### **ECON 390 Environmental Economics**

A study of the economic principles that underlie the role of the environment in the private and public sectors of the economy, with particular emphasis on environmental issues in the Maine economy. (Not offered every year.) Cr 3.

### **ECON 490 Independent Readings and Research in Economics**

Selected topics in the various areas of economics may be studied and researched on an independent basis. Prerequisites: Senior standing and permission of the instructor. Cr 1-3.

### **ECED 300 Economic Concepts and Research Materials for Educators**

A study of the simplification of economics 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 399 Regional Economics**

A study of the application of theoretical economic analysis to the problems of regional and economic planning and development, with special emphasis on the problems of Maine and northern New England. Prerequisite: ECON 101. Cr 3.

## **MASTER OF BUSINESS ADMINISTRATION**

### **GRADUATE COURSES**

(Offered only by the  
Continuing Education Division)

### **BUS 510 Operations Research**

A survey of commonly used models and analytical techniques in sophisticated quantitative-management-decision-making. Mathematical models are developed and applied in a wide range of business resource-allocation situations. Topics include: queuing theory, decision analysis, inventory theory, simulation, game theory, Markov analysis, classical optimization, mathematical programming (linear, integer and dynamic), and network analysis. Prerequisite: One course in statistics and one course in treating integral and differential calculus. Cr 3.

### **BUS 520 Industrial Relations and Personnel Management**

A comprehensive investigation of the changing pattern of industrial relations in the United States. Major emphasis is on the human, social, and economic aspects of employer-employee relationships in both union and non-union settings. Provides an understanding of and appreciation for the crucial importance of the development of sound and flexible personnel policies by top management. Among the areas considered are: the changing nature of the labor force; wages, salaries, and fringe benefits; hours of work; and the impact of technological change on the work force. Prerequisite: one course in management or industrial relations. Cr 3.

### **BUS 523 Collective Bargaining**

Discusses the major issues and problems in the collective-bargaining process. Provides the business manager with the knowledge of sound collective bargaining attitudes and techniques necessary to achieve a responsible and mature attitude in his relationship with employee representatives. To this end, major focus is on the development of the union movement in this country, the changing nature of public policy toward collective bargaining, and the public responsibility of both unions and management. In addition, attention is given to the specific tools of collective bargaining, including strikes, lockouts, grievance procedures, arbitration, mediation, and bargaining strategies and techniques. Prerequisite: BUS 520. Cr 3.

### **BUS 527 Human Relations in Industry**

This course is designed to acquaint the student with the complex system of interdependent human, social, technical, and organizational forces which underlie the feelings, action, and relationships of people in organizations. Such subjects as leadership theory, organizational theory, individual and group behavior, and communication theory are presented. Prerequisite: Six hours in business subjects. Cr 3.

### **BUS 530 Senior Executive Decision Making**

Administrative practice at the higher levels of business management, with major emphasis on long-range executive planning of profit, sales, production, social goals and objectives, and of strategies and

policies to achieve these objectives. Coordinates all executive activities, viewed as tools for use in developing administrative competence, in the formulation of business policies at the decision-making level. Prerequisite: BUS 510 or equivalent. Cr 3.

#### **BUS 533 Production Management**

Development of models and analytical techniques for designing, operating and maintaining production systems. The quantitative aspects of production analysis are emphasized. Topics include: forecasting, experimental design, scheduling, reliability, sampling, statistical quality control, inventory control, assembly line balancing, machine assignment and job sequencing. Prerequisite: BUS 510. (Not offered every year.) Cr 3.

#### **BUS 537 Organizational Behavior in Business**

Emphasis on the importance of the influence process, motivational settings, and the structural backgrounds of organizational status and social relations. Analysis through case discussion and readings will develop a conceptual framework for improving individual decision-making ability with respect to individual, group, and intergroup problems. Prerequisite: One course in management. (Not offered every year.) Cr 3.

#### **BUS 540 Managerial Accounting**

Development, analysis, and interpretation of accounting data and financial statements for managerial control, coordination, and decision-making; emphasis upon accounting as a tool of management. Topics are developed by utilization of case studies, problems, and reference material. Prerequisite: Six hours in accounting. Cr 3.

#### **BUS 550 Managerial Economics**

The application of economic analysis to the management of business enterprises. Designed to develop the student's ability to understand some of the important economic concepts and tools relevant to making decisions within a business firm. Particular attention is given to the use of interest and cost gradient tables, annual cost and present worth analysis, rate of return analysis, economic life, replacement economy cost minimization, and the impact of taxes on a decision. Prerequisite: Nine semester hours in economics and a course in introductory calculus. Cr 3.

#### **BUS553 Business Cycles and Forecasting**

A theoretical analysis of the basic forces that determine fluctuations in the level of income. Stabilization policies are examined and evaluated. Basic forecasting techniques for the over-all economy and for certain major sectors are also explored. Prerequisites: Six hours in economics and a course in introductory calculus. Cr 3.

#### **BUS 560 Financial Management**

A consideration of management decisions in the administration of corporate funds. Specific areas covered include capital budgeting, inventory control, working capital management, and the cost of capital. The side effects of taxation, depreciation methods, and earnings retention policies are noted. Current capital structure patterns are analyzed and evaluated. Prerequisite: One course in finance. Cr 3.

#### **BUS 563 Investment Management**

Emphasizes analysis and valuation procedures required to determine the investment quality of specific securities. Sets forth criteria for the formulation of a sound investment policy and the selection of investment media to implement it. Develops the techniques of continuing portfolio management and the task of periodic reappraisal. Prerequisite: One course in finance. Cr 3.

#### **BUS570 Marketing Management**

This course is organized to give the graduate student an opportunity to develop and test, through the case method, a number of marketing policies and strategies. Furthermore, the student will read and discuss the current literature in the field of marketing, reviewing current marketing practices and predictions for the balance of the century. Prerequisite: One course in marketing. Cr 3.

#### **BUS 573 Market Research and Analysis**

A study of the procedure and applications of market research. Such areas as the organization and operation of a research department, survey methods, experimentation, measurement of potential demand, and the analysis of distribution costs are considered. Emphasis on developing the student's ability to apply these and other

techniques toward the solution of marketing problems. Prerequisites: BUS 570 and one course in statistics.

Cr 3.

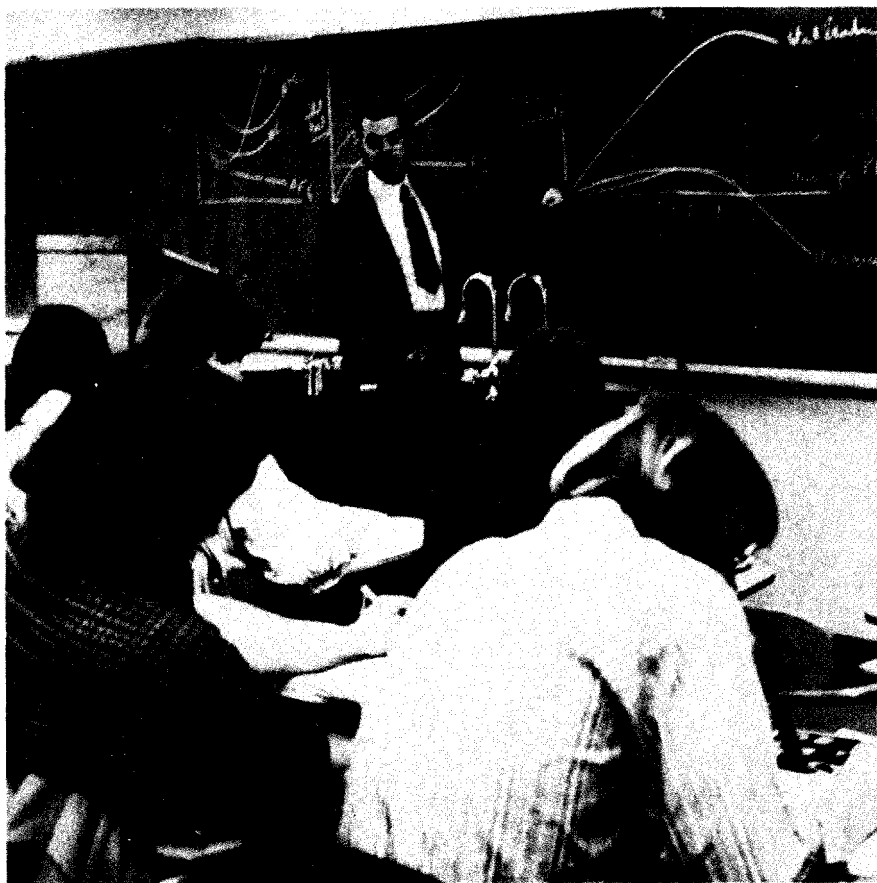
### **BUS 583 Business Logistics**

Explores in-depth the need for and means of centralization of decision-making to accomplish effective senior executive control of the chain of logistic activities from point of completion of manufacturing or other form of utility-creating process to delivery at the point of use or consumption. Interdisciplinary relationships with cybernetics, econometrics, operations research, computer-facilitated information analysis,

purchasing (materials management) and the customer relations aspect of marketing (physical distribution) reviewed in their role as logistics sub-systems or building blocks. Prerequisite: BUS 510. (Not offered every year.) Cr 3.

### **BUS 593 Independent Readings and Research in Business and/or Administration**

Selected topics in the area of Business and/or Administration may be studied and researched on an independent basis. Prerequisites: Permission of the instructor and the chairman of Graduate studies in Business is required. Cr 1-3.





# UNIVERSITY OF MAINE SCHOOL OF NURSING

**ACTING DEAN**  
**Judith T. Stone**

## **Department of Advanced Medical-Surgical Nursing**

Chairman: Ann P. Ellis, 61 Exeter Street, Portland.

Associate Professors Dorbacker, Stone;  
Assistant Professors Edwards, A. Ellis,  
Haas, Rost; Instructors Curtis, Henderson.

## **Department of Community Health Nursing**

Chairman: Jacqueline Karabin, 39 Exeter Street, Portland.

Associate Professors Jensen, Roscoe;  
Instructors Benvie, Fournier, Karabin,  
Perry; Lecturer Hall.

## **Department of Maternal-Child Health Nursing**

Chairman: Sarah Whitney, 11 Granite Street, Portland.

Associate Professors Tryon, Whitney;  
Assistant Professors Bellone, Pitkin;  
Instructor Tiedemann.

## **Department of Medical-Surgical Nursing**

Chairman: Jeanne G. Talbot, 57 Exeter Street, Portland.

Associate Professors Dubowick, Malmude,  
Marshall, Talbot; Assistant Professor  
Tatro.

## **Department of Psychiatric Nursing**

Chairman: Jean Cotton, 57 Exeter Street, Portland.

Associate Professors Cotton, Shoobs;  
Assistant Professors Balber, MacPherson,  
Tukey; Instructor E. Ellis.

## **Family Nurse Associate Program**

Director: George L. Pauck  
Nurse Director: Mildred Roche.

The School of Nursing offers a variety of programs to meet student needs. The four-year undergraduate program leads to the Bachelor of Science degree, with the major in nursing. The School's Bureau of Continuing Education for Nursing offers short-term educational programs for practicing nurses throughout the State of Maine. The

School also conducts two certificate, post-professional programs, one for Family Nurse Associates, and one for Pediatric Nurse Associates. The School is part of a consortium with Boston University whereby its graduate courses in nursing are offered on the Portland-Gorham campus.

## **THE BACCALAUREATE PROGRAM IN NURSING**

Upon successful completion of the four-year undergraduate program, the degree of Bachelor of Science, with a major in nursing, is awarded. One hundred and twenty credit hours, with a cumulative point average of 2.0, are required for graduation.

The program is designed to prepare a beginning practitioner who (1) makes relevant, effective responses to the needs of people by providing direct nursing care; (2) demonstrates an ability to coordinate nursing care effectively in various settings; (3) identifies her role as a professional nurse in the community. Nursing is conceived as an art and a developing science concerned with caring and curing. Preparation for professional nursing takes place within the climate of higher education, and builds upon an understanding of man in a bio-social-cultural environment. Excellence in nursing is achieved through the recognition of man's biological, social, and psychological needs, a priority assessment of these needs and effective modes of nursing intervention, and the evaluation of this process.

The first two years of the program consist of courses prerequisite to the clinical courses in nursing, and general education courses required by the University. These two years are offered on three campuses of the University of Maine system: Portland-Gorham, Orono, and Presque Isle. These two years must be completed in full before degree candidates in nursing matriculate for clinical courses in nursing during the junior and senior years on the Portland-Gorham home campus of the School.

Admissions to the undergraduate program are 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. In addition, the Admissions Office implements the policy of the faculty of the School in that policies shall not eliminate an entire category of people, such as high school students, transfers, registered nurses, adult learners, ethnic or religious groups, veterans, and men. Early application is advised because of limited space.

Advanced placement in the undergraduate program is available in several ways. By taking examinations in the College Level Proficiency, one can secure acceptable credit in some of the general and subject

examinations. For details, interested persons should contact the Director of Admissions. Credit by examination can be granted in certain courses at the junior level in nursing after admission to the program, provided prerequisite course requirements are met and permission is granted by the chairman of the department offering the course.

In addition to the required University fees and expenses, students of nursing must purchase uniforms (approximately \$100) during the sophomore year. They must also have the use of a car during the junior and senior years.

## REQUIREMENTS FOR THE NURSING MAJOR

The student who matriculates at this campus must attain a cumulative average of 2.0 and a minimum of 60 credits to enter the courses at the junior level of the nursing major. Achievement of "C" grade or better must be attained in courses cited as specific requirements for the nursing major as identified in the UMPG catalog.

### FRESHMAN YEAR

#### *Required*

BIO 101	Biological Principles	3
BIO 102	Biological Experiences	1
BIO 111	Human Anatomy and Physiology	3
BIO 112	Practical Human Anatomy and Physiology	1
NSG 100	The Role of the Nurse	3
CHEM 101	Chemistry for Health Sciences	3
CHEM 102	Introduction to Laboratory Measurement	1
CHEM 103	Introduction to Organic and Biochemistry	3
CHEM 104	Introductory Organic and Biochemistry Laboratory	1
PSY 101	General Psychology	3
and		
PSY Elective		3
FINE ARTS		
or		
HUMANITIES		6
ELECTIVE		3
		<hr/> 34

### SOPHOMORE YEAR

#### *Required*

BIO 299	Human Microbiology	3
BIO 399	Human Microbiology Lab	2
FN 352	Human Nutrition	3
SOC 100	Introduction to Sociology	
and		
ANY 101 or POL 101		3
and		
SOC Elective		3
FINE ARTS		
or		
HUMANITIES		6
ELECTIVES		9
		<hr/> 29

## JUNIOR YEAR

### *Nursing*

NSG 301	Medical-Surgical Nursing	7
NSG 302	Medical-Surgical Nursing	7
NSG 303	Nursing of Mothers & Children	7
NSG 304	Nursing of Mothers & Children	7
		<hr/> 28

## SENIOR YEAR

### *Nursing*

NSG 400	Advanced Medical-Surgical Nursing	12
NSG 401	Community Health	3
NSG 402	Community Health Nursing	6
NSG 403	Psychiatric Nursing	6
NSG 404	Seminar in Nursing	2
		<hr/> 29

In addition to the above, there is a Physical Education requirement of two credits which must be met unless excused in writing by the Dean of the School of Nursing. REC 100 Posture and Efficiency of Movement (0.5 credits) is required for partial fulfillment of the 2 credits.

## COURSE DESCRIPTIONS

### **NSG 100 The Role of the Nurse**

Concepts of nursing and nursing education essential to the understanding of the role of the nurse in today's world. Open to non-nursing students with permission of the instructor. Cr 3.

### **NSG 301 Medical-Surgical Nursing**

Foundations of nursing care of the adult. Concepts include: health maintenance, stress, basic needs, communication, and the nursing process. Prerequisite: Junior standing in the School of Nursing. Cr 7.

### **NSG 302 Medical-Surgical Nursing**

Nursing care of adults with health problems, present or potential, arising from the normal aging process or a pathophysiological condition. Course parallels NSG 301. Prerequisite: Junior standing in the School of Nursing. Cr 7.

### **NSG 303 Nursing of Mothers and Children**

A family centered approach to the nursing needs of parents and children in community care agencies. Emphasis in class and clinical will be on health maintenance. Prerequisite: Junior standing in the School of Nursing. Cr 7.

### **NSG 304 Nursing of Mothers and Children**

A parallel course taken with NSG 303. A family centered approach to the nursing needs of parents and children with class and clinical emphasis on health restoration. Cr 7.

### **NSG 400 Advanced Medical-Surgical Nursing**

Concepts of nursing intervention based on scientific principles. Emphasis is on current trends in clinical nursing and the organizational principles relevant to the leadership role in coordinating the work of others. Prerequisites: NSG 301, NSG 302, NSG 303, and NSG 304. Cr 12.

### **NSG 401 Community Health**

Concepts and principles basic to the development and maintenance of community health. Emphasis is on the use of epidemiological approach to survey major health issues. Prerequisites: NSG 301, NSG 302, NSG 303 and NSG 304. Open to non-nursing students by permission of instructor. Cr 3.

### **NSG 402 Community Health Nursing**

Concepts of community health and the nursing process essential to the practice of nursing in the community. Emphasis is on family-centered nursing and health promotion in all classroom and clinical experiences. Prerequisites: NSG 301, NSG 302, NSG 303, NSG 304. Cr 6.

### **NSG 403 Psychiatric Nursing**

The study of psychodynamic concepts and their application to nursing care. Prerequisites: NSG 301, NSG 302, NSG 303 and NSG 304. Cr 6.

### **NSG 404 Seminar in Nursing**

Current problems and issues of the profession. Prerequisite: Senior standing in the School of Nursing. Cr 2.

**NSG 295 Independent Study in Nursing I**  
Individualized study in an area of nursing with the permission of the instructor.

Cr 2-3.

**NSG 395 Independent Study in Nursing II**  
Individualized study in an area of nursing with the permission of the instructor.

Cr 2-3.

**NSG 495 Independent Study in Nursing III**  
Individualized study in an area of nursing with the permission of the instructor.

Cr 2-3.

#### **FN 352 Human Nutrition**

Body metabolism and requirements for nutrients by normal individuals. Prerequisites: CHEM 101, CHEM 102 or equivalent, and BIO 111.

Cr 3.

### **THE BUREAU OF CONTINUING EDUCATION FOR NURSING**

The overall objective of the Bureau is to provide educational programs for nurses in Maine that are designed to (1) stimulate and create an interest in extending their basic education, (2) update their knowledge within specialized areas of nursing care, (3) enhance the leadership capability of nurses, (4) promote better health care to consumers by enhancing the knowledge and skills of the nurse, and (5) create an awareness of the total system of health-care delivery and how their special nursing knowledge and skills can serve imaginatively the health-care delivery system.

The planning and implementation of such programs are based upon identified and projected needs of the learner and society, and are conducted in concert with related health agencies and key advisory people in the State of Maine.

As part of the School of Nursing, the Bureau of Continuing Education for Nursing offers counseling and program guidance to registered nurses interested in pursuing part-time study prior to matriculation into the School of Nursing. Program information may be obtained by contacting Mary Ann Rost, Director, B.C.E.N., University of Maine at Portland-Gorham, Portland campus, 773-2981, Extension 476.

### **THE FAMILY NURSE ASSOCIATE PROGRAM**

The Family Nurse Associate Program is conducted as a non-credit certificate program through the School of Nursing at this University. It is designed to enable the professional nurse to assume an expanded role in providing health care to the family.

The Program has two phases: a six-month pre-phase of directed home study and a subsequent twelve-month period consisting of formal coursework and supervised field experience.

The curriculum is devoted to history-taking, physical examination, simple laboratory procedures, common health problems, public health nursing principles, intensive clinical teaching, and physician-supervised clinical practice in community health facilities.

Program information may be obtained by contacting George L. Pauk, M.D., Program Director, Department of Community Medicine, Maine Medical Center, 22 Bramhall St., Portland, Maine 04102.

### **GRADUATE EDUCATION IN NURSING**

The University of Maine School of Nursing and Boston University School of Nursing have established a consortium whereby Boston University's graduate programs are made available on the Portland-Gorham campus. Interested persons holding the prerequisite baccalaureate degree in nursing may wish to make initial contact with the Dean, School of Nursing, University of Maine at Portland-Gorham campus, 96 Falmouth St., Portland, Maine 04103; tel. 207-773-2981.

Specific arrangements regarding programs are to be made by contacting directly: Dean Evelyn Elwood, Graduate Studies, Boston University School of Nursing, 635 Commonwealth Avenue, Boston, Massachusetts 02215; tel. 617-353-3445.

### **THE PEDIATRIC NURSE ASSOCIATE PROGRAM**

The Pediatric Nurse Associate Program is conducted at the Maine Medical Center, in conjunction with the School of Nursing at this University.

The admission requirements are that the applicant be a registered nurse, have a defined position upon graduation, and have had previous experience in child care or public health nursing. Preference is given to

nurses who will practice in Maine. The course is one year in length, with time approximately equally divided between academic and clinical instruction. Upon satisfactory completion of the course, the Certificate of P.N.A. is awarded by the University of Maine.

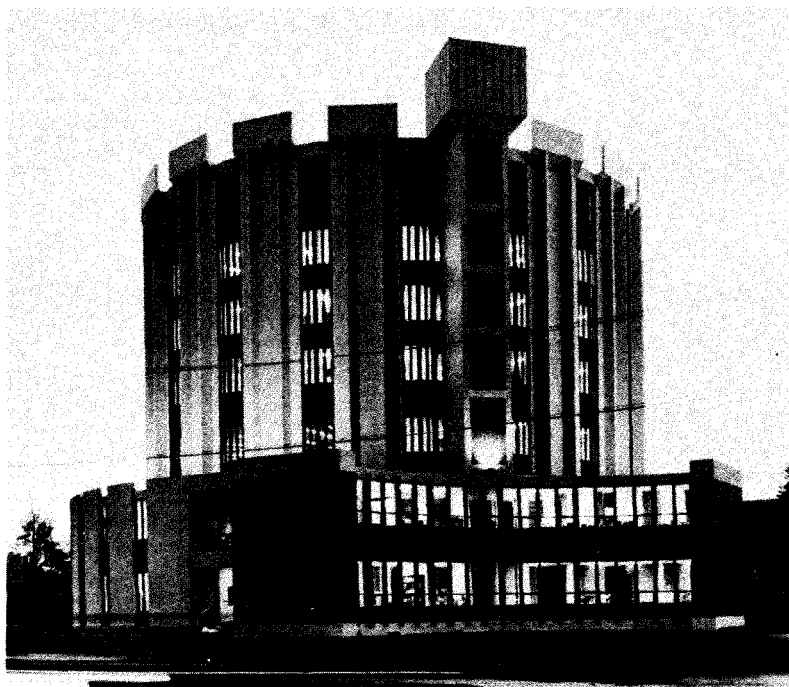
Program information may be obtained by contacting George Hallett, M.D., at the Maine Medical Center (Tel. 207-871-0111), 22 Bramhall Street, Portland, Maine 04102.

### **SCHOOL OF LAW**

The University of Maine School of Law is located on the Portland campus of the University of Maine at Portland-Gorham. The school is a charter member of the Association of American Law Schools, and is on the fully approved list of the American Bar Association. As an element of the University of Maine, the school is ac-

credited by the New England Association of Schools and Colleges, Inc. The curriculum is taught by a resident faculty of sixteen, with a student body of 240.

For more information please write to Registrar, University of Maine School of Law, 246 Deering Avenue, Portland, Maine 04102.



## **DIVISION OF PHYSICAL EDUCATION AND INTERCOLLEGIATE ATHLETICS**

Director of Division of Physical Education and Intercollegiate Athletics: Richard A. Costello, 108 Hill Gym, Gorham.

### **Department of Physical Education**

Professors Costello, Hodgdon; Associate Professors Bouchard, Goodwin; Instructors Drew, Raybould.

The Division of Physical Education and Intercollegiate Athletics comprises two departments: The Department of Physical Education and the Department of Recreation. Certain faculty members from the Division are also assigned the responsibility of organizing and coaching the various Intercollegiate and Intramural Athletic activities for men and women.

The Intercollegiate Athletic programs, as well as the many Recreation/Leisure Activities available to all students, are described under "Student Life and Activities," one of the major introductory sections of this catalog.

The academic programs of the Department of Physical Education are described on the lower part of this page and the immediately following pages. Information concerning the faculty and academic programs of the Department of Recreation is contained in the following section of the catalog.

### **Goals and Objectives**

The goals and objectives of this department are to provide course offerings, programs, and services in our specialty areas to all university students. Through wholesome physical activities and experiences, the student will learn lifetime skills and techniques.

In order for students to become liberally educated, they should understand and appreciate the importance of human movement with respect to their complete development.

### **COURSES IN PHYSICAL EDUCATION ACTIVITIES**

Courses in Physical Education Activities numbered PE 100 through PE 197, PE 207, PE 211, and PE 215 may be used to satisfy the Physical Education requirements of the School of Education or the School of Nursing. They may also be used as General Education electives under Area 5 of the General Education Requirements for students in the College of Arts and Sciences or the School of Nursing, or for four-year Business Administration majors in the School of Business and Economics.

PE 100	Foundations of Phys. Ed.
PE 103	Physical Fitness
PE 105	Weight Training
PE 106	Wrestling
PE 107	Trampoline
PE 108	Camping
PE 109	Yoga
PE 110	Canoeing
PE 112	Cycling
PE 113	Ski Touring
PE 114	Snow Shoeing
PE 115	Scuba Diving
PE 116	Hiking
PE 117	Small Boat Handling
PE 118	Roller Skating
PE 119	Horsemanship
PE 121	Mountaineering I
PE 122	Mountaineering II
PE 134	Basketball for Women

PE 135	Field Hockey for Women
PE 136	Slimnastics
PE 137	Tumbling
PE 140	Ballet
PE 174	Archery
PE 175	Badminton
PE 177	Candlepin Bowling
PE 179	Folk Dancing
PE 180	Dance
PE 181	Modern Dance
PE 182	Fencing
PE 184	Golf
PE 185	Gymnastics
PE 186	Jogging
PE 187	Karate
PE 188	Lacrosse
PE 189	Soccer
PE 190	Skiing
PE 191	Softball

PE 194 Tennis  
 PE 195 Volleyball  
 PE 196 Self-Defense  
 PE 197 Rhythms

PE 207 Gymnastics  
 PE 211 Ropes  
 PE 215 Posture & Figure Control

### CERTIFICATE PROGRAM IN ATHLETIC COACHING FOR MEN AND WOMEN

This program is designed to prepare interested students in handling certain coaching responsibilities in the public schools of Maine. 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 care and prevention 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)

<i>Required Courses:</i>		<i>Credits</i>
PE 203	Athletic Training (Care & Prevention of Injuries)	3
PE 314	Organization & Administration of Athletics	3
PE 391	Field Experience in Coaching	1-3
<i>Elective Courses:</i>		
PE 302	Coaching Philosophy & Fundamentals	3
PE 303	Coaching Basketball	2
PE 305	Coaching Track and Field	2
PE 311	Coaching Soccer	2
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 333	Coaching Skiing	1
PE 334	Coaching Cross Country	1
PE 335	Coaching Baseball & Softball	2

### PROFESSIONAL COURSES IN PHYSICAL EDUCATION

#### **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 208 Folk and Square Dance**

##### **Workshops**

A beginning, intermediate, and advanced affiliation program with the Maine Folk Dance Camp. Cr 1.

#### **PE 209 Officiating Basketball**

Study and discussion of the rules as well as practical experience in the techniques of officiating basketball. Practical and written tests will be given. Students completing this course will have the opportunity to take officials' examinations. 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 officiating. Practical and written tests will be given. Opportunity to become a rated official. Cr 2.

**PE 302 Coaching Philosophy and Fundamentals**

This course will cover various approaches to planning, organizing, and implementing practice sessions in preparation for athletic competition. The psychological and emotional aspects of coaching will also be covered. 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. (Offered in alternate years) Cr 2.

**PE 311 Coaching Soccer, Philosophy and Methods**

Emphasis on the methods of teaching and coaching soccer. Offense and defense, player-coach relationship, team selections, planning of practice sessions, and game situations will be areas of concentration. Two hours lecture, two hours lab per week. Cr 2.

**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 elementary, junior and senior high schools. Areas of concentration will be travel, scheduling, supplies, equipment, facilities, budget, and personnel. Three hours lecture per week. 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 324 Dance Methods and Materials for Teaching**

Theory and practice of methods of teaching dance on elementary, secondary, college, and professional levels; concentrated technique in the individual's movement vocabulary; exploration of movement sequences; elements of movement qualities. Cr 3.

**PE 331 Coaching Golf, Philosophy and Methods**

A concentrated course dealing primarily with team selection, match strategy, scheduling, equipment, and basic fundamentals of golf instructional techniques. Cr 1.

**PE 332 Coaching Tennis, Philosophy and Methods**

A concentrated course with emphasis on match strategy, player selection, and instructional techniques for individual and team play. Cr 1.

**PE 333 Coaching Skiing,  
Philosophy and Methods**

A concentrated course emphasizing the methods of team selection, race strategy, and instructional techniques. (Offered in alternate years) Cr 1.

**PE 334 Coaching Cross Country,  
Philosophy and Methods**

An eight-week course of study with emphasis on training techniques, race strategy, and practice organization. Cr 1.

**PE 335 Coaching Baseball and Softball,  
Philosophy and Methods**

Emphasis on the methods of teaching and coaching baseball. 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: Permission of instructor. Cr 1-3.

**PE 406 Survey of Movement and  
Dance in Education**

A background of the history and development of modern dance heritage. Folk, square, modern dance forms, including techniques and teaching composition of each form. Course is also designed to include the place of dance in education. Cr 3.

**PHYSICAL EDUCATION  
LEADERSHIP COURSES**

**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 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 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 teaching; lesson planning; physical fitness; movement education; fundamental skills; gymnastics and small apparatus; wilderness pursuits; health and safety and extra-curricular programs. 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 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 under the supervision of qualified teachers and a University instructor. Prerequisite: previous experience with children or permission of instructor. 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. Prerequisite: Permission of the instructor.

Cr 1-3.

### **DANCE**

Dance instruction is offered through "The Modern Dance Group." Students engage in lecture-demonstrations and developmental activities and present programs to collegiate and local civic-community organizations. Interested students, with or without experience, should meet with the instructor and register under one of the DNCE numbers.

### **COURSE DESCRIPTIONS**

#### **DNCE 300 Contemporary Dance I**

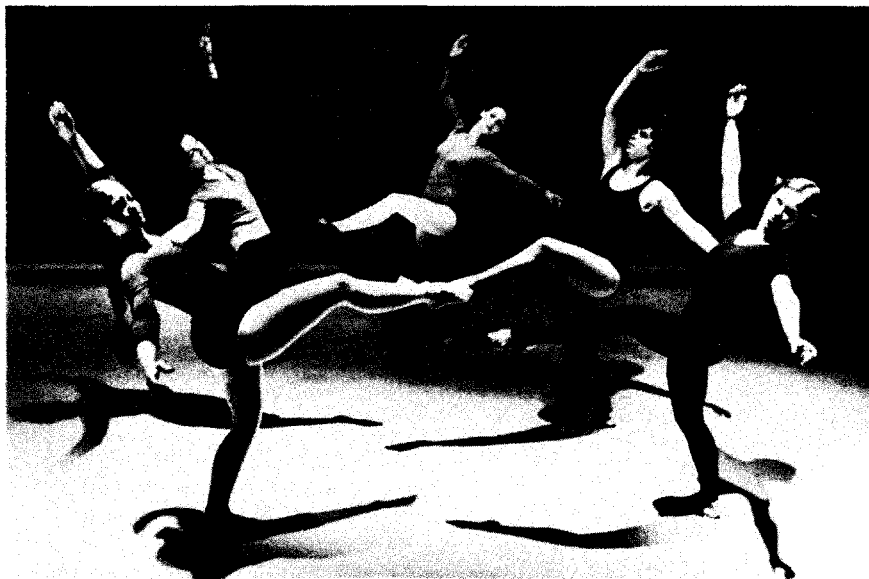
A course involving the technique of modern dance; beginning, intermediate, and advanced depending on the degree of competency; work in choreography, program planning, use of music in dance, history of the dance. Open to men and women students. Permission of instructor required. Cr 2.

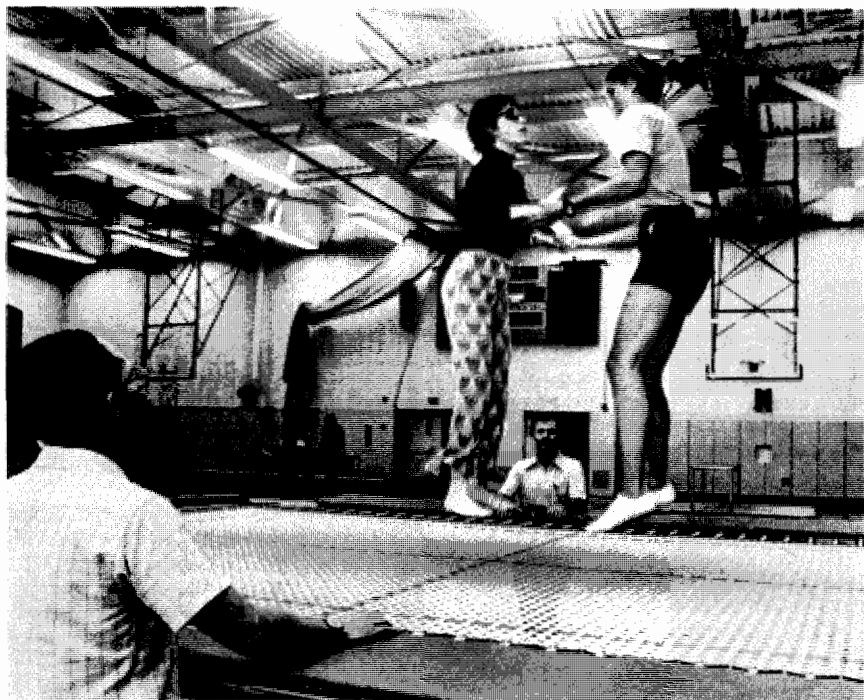
#### **DNCE301 Contemporary Dance II**

A continuation of DNCE 300. Cr 2.

#### **DNCE 302 Contemporary Dance III**

A continuation of DNCE 301. Cr 2.





## **DEPARTMENT OF RECREATION/LEISURE STUDIES**

Director of Department of Recreation/Leisure Studies: James V. Sullivan, 110 Portland Gym, Portland.

Professor Sullivan; Associate Professor Folsom; Assistant Professors Breton, Martin, Willard.

The Department of Recreation and Leisure Studies delivers a two-year Therapeutic Recreation Program as well as a wide selection of elective professional recreation courses. The two-year Therapeutic Associate Degree Program is under the auspices of Associate Degree Studies. Students who are interested are encouraged to take professional recreation courses that are relevant to their academic programs.

The Portland gymnasium is also the home base for a variety of recreational activities. The gymnasium consists of three large separate floors, plus a multi-purpose room,

an exercise room, a dance room, two racquetball-handball courts, and two squash courts. Each of the locker rooms offers ample shower facilities, and each locker room also has a sauna available to students, faculty, and staff.

The Recreation and Leisure Studies Department sponsors the U.M.P.G. Community Leisure-Learn Recreation Program. This program is designed to make the Portland gymnasium facilities available to students, faculty, staff, alumni, and some general public. The general public is offered the use of the facilities only during hours when the students are not using the facility up to its capacity. Programs are: physical fitness, skills instruction, clinics and tournaments; these are all part of the Leisure-Learn Community Program.

For information regarding fees and time schedules, contact the Recreation/Leisure Studies office at the Portland gymnasium.

## COURSES IN RECREATION AND LEISURE

Courses in Recreation and Leisure may be used to meet the University's general requirements under Area 5. Besides the

courses listed under the Associate Degree Studies Therapeutic Recreation Program, the following may be elected:

RLS 100	Recreation and Leisure Activities
RLS 101	Posture and Efficiency of Movement
RLS 203	Personal Fitness
RLS 205	Rhythmic Activities
RLS 209	Small Boat Seamanship
RLS 219	Recreation and Leisure Activities
RLS 316	Man and Leisure
RLS 346	Dance in Recreation and Leisure
RLS 400	Independent Study in Recreation & Leisure
RLS 204	Problems in Recreation & Sports Clubs
RLS 099	Advanced First Aid & Emergency Care (CED)
RLS 317	Choices for the Leisure Experience

### **RLS 100 Recreation and Leisure Activities**

Activities available:

Advanced Lifesaving	Handball	Self Defense
Archery	Horsemanship	Ski Touring
Badminton	Karate	Slimnastics
Bowling	Racquetball	Swimming
Chinese Goju-Do	Road Running	Squash
Figure Skating	Sailing	Tennis
Fly Fishing	Scuba Diving	Yoga
Gymnastics		

Laboratory, 2 hours

Cr 0.5-1, per activity

### **RLS 010 Introduction to Recreation/Leisure Trends**

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.

### **RLS 011 Leadership and Supervision of 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.

### **RLS 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.

### **RLS 013 Programming for Regular and Special Populations**

This course will provide students with the necessary information and professional skills and techniques required to plan recreation/leisure programs for both regular and special populations.

Cr 3.

### **RLS 015 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.

### **RLS 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 child

birth, 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.

**RLS 017 Small Boat Handling and Seamanship**

The objective of this course is to inform the student on all phases of boating. Information on 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 Lec. Cr 2.

**RLS 018 Rhythmic Dance Activities**

An introduction to basic dance tempos including folk, social, and square dances. Co-ed. Two hours Lab. Cr 1.

**RLS 019 Personal Fitness**

This course is designed to help the student understand the human organism, its structure, function, capabilities, and limitations in relation to physical activity. The student will be given personal

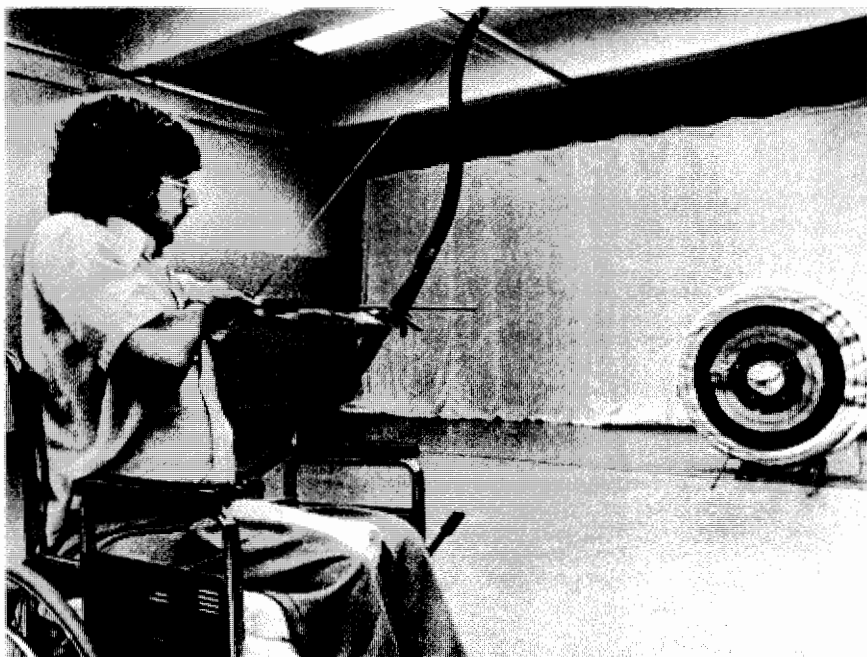
assessments including tests of flexibility, body fat percentage, strength and oxygen uptake (cardio-vascular endurance). The course involves one hour of lecture per week plus three exercise sessions designed to achieve an improved fitness level. Co-ed. Both semesters. One hour Lecture. Three hours Lab. Cr 2.

**RLS 020 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.

**RLS 021 Development and Utilization of Therapeutic Recreation Resources**

Survey of field and audio-visual education and resources; instruction and practice in use of equipment and materials, collection and processing of Recreation Development Center resources relating to special populations. Cr 3.



## **RLS 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.

## **RLS 023 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.

## **RLS 024 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 recreational sports movements are emphasized. Requirement for nursing students. Lecture, 1 hour; laboratory, 1 hour, Eight Weeks. Cr 0.5

## **RLS 025 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 is presented. Historical, philosophical, psychological, sociological, economical, educational, ecological, political and physiological. Cr 3.

## **RLS 026 Leadership in Recreation and**

### **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.

## **RLS 028 Problems in Recreation and**

### **Sports Clubs**

This course will discuss all the relevant problems associated with the organization and administration of programs in leisure activities for individuals in educational institutions, community programs, large office complexes, etc. These problems include the organization of activities,

financial responsibilities, publicity, and public relation efforts. Three hours Lecture. Cr 3.

## **RLS 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.

## **RLS 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.

## **RLS 037 Choices for the**

### **Leisure Experience**

Considers recreative experiences in the development of a well-rounded individual are reviewed. Students analyze and participate in a wide range of activities to assist in the development of a personal, operational philosophy of leisure. Cr 3.

## **RLS 090 Community Involvement**

### **Workshop**

This course requires each student to investigate and become involved in recent developments in recreation and leisure in a community, agency, or institution with faculty supervision. Cr 6.

## **RLS 095 Selective Field Placement**

### **or Internship**

Pre-professional assignment in one or more recreation settings (e.g., industry, homes for the aged, institutions, agencies, halfway houses, hospitals, parks, camps, playgrounds, schools for the handicapped, penal institutions, and rehabilitation centers). Faculty supervision and guidelines provided. Cr 9.

## **RLS 098 Independent Study in**

### **Recreation and 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 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.

## **CONTINUING EDUCATION DIVISION**

**Director of Continuing Education and Summer Session**  
**William G. Mortensen**

**Associate Director of Continuing Education and Summer Session**  
**William U. Small**

John N. Farrar, Director of Counseling, Continuing Education and Summer Session

Hollie L. Ingraham, Counselor

Raymond P. Kane, Director of Conferences and Special Programs

The Continuing Education Division offers a broad diversity of programs, including those to meet specialized needs and designed to relate the University to the outlying community, and also those to meet the cultural and academic needs of persons who have to work during normal daylight hours but who are able and willing to take university courses offered in the late afternoon, in the evening, on Saturdays, or during day or evening Summer Sessions.

### **ACADEMIC PROGRAMS OFFERED THROUGH C.E.D.**

#### **Deferred Degree Candidates**

Persons who have to work during daytime hours may enroll for individual courses for which they are qualified. Adults who have not made formal application for degree status, but are interested in following a C.E.D. program which may lead to admission as a degree candidate, are required to receive counseling from a C.E.D. Counselor in order to be admitted as Deferred Degree Candidates. Persons who register as Deferred Degree Candidates, complete the basic program specified by their C.E.D. Counselor, and earn grades acceptable for transfer, may then apply as regular Degree Candidates; and if accepted, applicable credits may be transferred toward the desired degree.

#### **Degree Candidates**

Applicants who satisfy the same admission standards as students enrolled in the day division of the University are classified as Degree Candidates. Undergraduates who wish degree status must apply to the Director of Admissions. Graduate students must apply to the Dean of Graduate Studies. Degree Candidates are those who have been accepted by the Committee on Admissions.

#### **Types of Programs Offered**

The Continuing Education Division offers many of the academic programs described on the earlier pages of this catalog. A few programs, such as those of the School of Law or some of the laboratory-centered undergraduate programs in the various sciences, are not offered. Most of the other subjects described in this catalog are available on either an annual or a rotating basis.

The current academic-year enrollment of the Continuing Education Division totals approximately 6,000 part-time students, and an additional 3,000 persons are normally enrolled in the various Summer Session courses.

In addition to the varied C.E.D. programs for undergraduate and graduate students, the Division offers many short courses, specialized seminars, and other programs.

## **CERTIFICATE COURSE "CEU" AWARD SYSTEM**

Students completing individual courses in the following Certificate Programs receive Continuing Education Unit (CEU) awards rather than semester-hour credits on their grade sheets and permanent records. The reason is that Certificate Program courses require fewer class hours than the degree-credit courses which are offered for persons enrolled in the university-degree programs. The "CEU Unit" system for grade sheets and permanent records of students completing courses of the type provided by the UMPG Certificate Programs has been officially adopted by the New England Council of Deans and Directors of Continuing Education.

## **CERTIFICATE PROGRAM IN QUALITY CONTROL**

This series of courses is tailored for those who are interested in quality control as it applies to either small or large business.

The program as a whole 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. Individual courses will be of special interest and 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.

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
NSQ 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
CSM 28-51 ( 10 wks)	Human Relations
CSM 40-51 ( 10 wks)	Production Control

All of the courses are designed to be both flexible and practicable in nature, and are specifically directed to assist the small business community. The subjects are aimed at providing those engaged in either Quality Control, or the production of Quality, with the necessary basic tools and techniques for setting up new Quality Assurance Systems, and for improving effectiveness of programs which already exist. Any person engaged in producing quality in the field of manufacturing or production will find selected courses beneficial.

Selected courses in the Certificate Program in Management (CSM) have been incorporated in this program. The class size in all subjects is limited, depending upon the "type" of course offered.

## **CERTIFICATE PROGRAM IN MANAGEMENT**

For those who are interested in the field of management and desirous of improving skill and effectiveness, the Continuing Education Division offers a program leading to a Certificate in Management.

The program is the result of consultations with business and educational leaders. The subjects are designed to meet the specific needs of the business community. Upon completion, it is expected the participants will be better equipped with basic, usable knowledge of management principles, thus contributing to career, company, and society.

The following courses are offered in the program:

CSM 10 Business Management I	CSM 30 Marketing and Distribution
CSM 11 Psychology Applied to Business	CSM 40 Production Control*
CSM 12 Legal Aspects of Business*	CSM 41 Electronic Data Processing*
CSM 13 General Economics	CSM 42 Policy Formulation and Administration
CSM 14 Oral Communication	CSM 50 Managerial Accounting I
CSM 15 Written Communication	CSM 51 Managerial Accounting II*
CSM 18 Business Management II	CSM 52 Business Mathematics
CSM 28 Human Relations*	

\*Electives: Two to be chosen to meet Certificate requirements as explained below.

The subjects of the program are designed to be both flexible and practical from the standpoint of the needs of management. Each course will frequently have the traditional college approach as well as practical aspects necessary for current business practice. A "Certificate of Completion" rather than degree credit will be awarded to those who successfully complete the Certificate Program.

Each course is scheduled for ten weeks and, with a few exceptions, classes will be of two and one-half hours duration. Those not interested in completing the entire program may register in individual courses. Upon completion of the ten required courses and two of the five elective courses identified with an asterisk (\*), a Certificate of Completion will be awarded by the Continuing Education Division.

Instructors include business specialists and faculty members from the University and other institutions. As of September 1973, the fee for each course was \$35.00, plus a \$5 registration fee. Textbooks and study materials are not included in the charge. A brochure is available upon request.

## **CERTIFICATE PROGRAM FOR PRACTICING SECRETARIES**

Persons who are already trained in stenographic skills and who wish to meet the requirements of higher-level secretarial positions including, if desired, preparation for the prestigious Certified Professional Secretary's examination, will find this program designed to meet their needs.





The twelve evening courses in the Certificate Program for Practicing Secretaries include eleven of the most practical courses offered in the Certificate Program in Management, together with a specialized course emphasizing the aspects of office administration which are apt to be the responsibility of a major executive's secretary. The entire group of courses covers all subjects tested in the two-day Certified Professional Secretary's examination, except for the stenographic skills of typing, shorthand, and transcription. Since this certificate program is designed for persons who are already employed as practicing secretaries, it is understood that all persons who register in this program have already received a thorough training in the various stenographic skills.

CSPS 10 Secretarial Procedures  
 CSM 10 Business Management I  
 CSM 12 Legal Aspects of Business  
 CSM 13 General Economics  
 CSM 14 Oral Communication  
 CSM 15 Written Communication  
 CSM 18 Business Management II

CSM 28 Human Relations  
 CSM 41 Electronic Data Processing  
 CSM 42 Policy Formulation and  
     Administration  
 CSM 50 Managerial Accounting I  
 CSM 52 Business Mathematics

Each course is scheduled one evening a week for ten weeks, and classes are normally of two and one-half hours duration. Students may enter classes in early September, early December, or late February each year. The program normally requires two years for completion, but those not interested in completing the entire program may register in individual courses. Upon completion of the twelve required courses, a Certificate of Completion will be awarded by the Continuing Education Division.

Instructors include business specialists and faculty members from the University and other institutions. As of September 1973, the fee for each course was \$35, plus a \$5 registration fee. Textbooks and study materials are not included in the charge. A brochure is available upon request.

## **SPECIALIZED SEMINARS AND SHORT COURSES**

Throughout the school year, the Continuing Education Division periodically offers a variety of seminars, institutes, workshops, conferences, and other short courses. The specialized programs are frequently developed at the request of the representative of a group, a member of the university staff, or an interested individual. Many programs include a group of lectures and seminars scheduled for a single day; others consist of briefer sessions once a week for several weeks.

Some of the more popular subject matter is in the area of:

Engineering	Antiques	Transportation
Retailing	Purchasing	Management
Shakespeare	Veterinarian Medicine	

Although local talent is utilized when available, each lecturer or seminar leader is a professional in the given field, and speakers are often recruited from distant parts of the United States or Canada. Since this type of public service must be self-supporting, a nominal tuition fee is charged.

Information regarding specialized courses is available from the Continuing Education Division Office, 96 Falmouth Street, Portland, Maine 04103 (Telephone 773-2981, extension 272).

## **PUBLIC SERVICE FACILITIES OF THE UNIVERSITY**

This University offers facilities at both campuses for conferences, institutes, seminars, workshops, and training programs. Thousands of persons each year take advantage of the resources and facilities offered by the University to such groups.

Meetings of educational value—whether their primary purpose may be to impart information, solve problems, upgrade professional skills, further some aspect of education, or develop a greater understanding of current problems—are a part of the total educational program of the University.

## **VOCATIONAL-TECHNICAL EDUCATION PROGRAM**

A program recognizing Industrial and Occupational Experience and awarding college credit through part-time evening and summer courses leading to a Bachelor of Science degree in Vocational Education or Technology is designed to:

(a) prepare instructors for the teaching of vocational and/or technical subjects in high schools and post-secondary schools:

or (b) provide non-teaching majors an opportunity to pursue a college program leading to a degree which recognizes trade and technical competencies and provides knowledge in business and industry leading to supervisory, technical, or middle-management positions.

**For additional information and a brochure, contact:**

**Dr. Arthur O. Berry**  
**Coordinator of Vocational-Technical Education, U.M.P.G.**  
**Gorham, Maine 04038**

## **COMMUNITY SERVICES**

The Continuing Education Division, through the office of the Director of Continuing Education and Summer Session, is able to provide community services on a limited basis.

## **ASSOCIATE DEGREE STUDIES**

**Director**  
**George P. Connick**

**Assistant Directors**  
**Samuel G. Andrews**  
**Richard H. Sturgeon**

### **YORK COUNTY COMMUNITY COLLEGE SERVICES**

**Coordinator:** Ellen Forbes  
**Counseling Director — Sanford:** Lorraine Masure  
**Counseling Director — Biddeford:** Judi Mellor  
**Counselor — Biddeford:** John Pence  
**Counselor — Eliot:** Robert Weimont

Associate Degree Studies, a new academic unit of the University established in 1973, has the responsibility for developing and offering new less-than-baccalaureate programs.

In cooperation with Southern Maine Vocational Technical Institute (SMVTI), Associate Degree Studies is offering off-campus degree programs through York County Community College Services. This joint venture provides less-than-baccalaureate degree opportunities and comprehensive counseling services for citizens of York County.

Programs currently available from the University of Maine are Liberal Arts, Selected Studies, Business Administration, Therapeutic Recreation, and Human Services (Gerontology). Southern Maine Vocational Technical Institute has available programs in Law Enforcement, Building Construction, Electronics Technology, and Secretarial Science. In addition, a joint program in Hotel-Motel Restaurant Management is being offered.

Courses are offered in the early morning, late afternoon, and evening in order to maximize the opportunity for working students to participate. Arrangements made with private colleges, local education agencies, churches and libraries allow the majority of courses to be offered in convenient locations for the student.

Interested persons holding a high school diploma (or its equivalent) or who are 18 years of age may enroll by contacting the local Counseling Offices. Information or literature regarding the available programs may be obtained by contacting:

**YCCCS COUNSELING OFFICE**  
260 Main Street  
Biddeford, Maine  
282-4111 or 282-4112

**YCCCS COUNSELING OFFICE**  
195 Main Street  
Sanford, Maine  
324-6012 or 324-6013

**OR**

**ADMISSIONS OFFICE**  
U.M.P.G., 96 Falmouth Street  
Portland, Maine 04103  
773-2981

**ASSOCIATE DEGREE STUDIES**  
U.M.P.G., 96 Falmouth Street  
Portland, Maine 04103  
773-2981

## UNIVERSITY of MAINE at PORTLAND-GORHAM PERSONNEL LISTINGS

### EMERITI

- Bailey, Francis L.** (1940-1960) B.A., M.A., Ph.D., President Emeritus of Gorham State College of the University of Maine
- Bonney, Luther Isaac** (1957-1958) Bates College, B.A., 1906; M.A. (Hon.), 1951; University of Maine, Sc.D., 1959; Dean Emeritus, University of Maine in Portland
- Bowman, James A.** (1949-1974) Gorham State Teachers College, B.S., 1947; Boston University, Ed.M., 1951; Associate Professor Emeritus of Educational Psychology
- Clark, Elmer Banks Fred** (1946-1975) University of Florida, B.A.E., 1935; M.A., 1937; Associate Professor Emeritus of French and Spanish
- Dickey, Edna F.** (1946-1973) University of New Hampshire, B.A., 1933; M.A., 1936; Associate Professor Emerita of History
- Kerr, Elizabeth F.** (1957-1974) Marygrove College, B.S., 1939; Columbia University, A.M., 1946; Ed.D., 1956; Professor Emerita of Education
- 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
- Peabody, Mildred** (1952-1973) Gorham State College, B.S., 1939; Boston University, Ed.M., 1952; Associate Professor Emerita of Education
- Sawtelle, Gwen D.** (1938-43; 1953) University of Minnesota, B.S., 1935; George Peabody College for Teachers, M.A., 1939; Associate Professor Emerita of Art
- Wood, Esther E.** (1930-1972) Colby College, A.B., 1926; Radcliffe College, M.A., 1929; Associate Professor Emerita of Social Sciences

### PERSONNEL

*The following list includes both teaching faculty and administrative personnel. Dates in parentheses indicate initial year of appointment.*

- Abel, Nancy Jean** (1976) Upward Bound Field Worker; University of Maine at Orono, B.A., 1973; Simmons College, M.A., 1975
- Aiuppa, Thomas A.** (1975) Assistant Professor of Mathematics; Western Illinois University, B.A., 1968; University of Illinois, M.A., 1971; University of Georgia, A.B.D., 1974
- Albee, Parker Bishop, Jr.** (1966) Associate Professor of History; Dartmouth College, A.B., 1961; Duke University, M.A., 1964; Ph.D., 1968
- Allen, Bruce A.** (1970) Associate Professor of Mathematics Education and Director, Undergraduate Programs; Gorham State College, B.S., 1960; M.S., 1967; Boston University, Ed.D., 1973
- Anderson, Andrew L.** (1975) Instructor in Graphic Communication; University of Wisconsin at Platteville, B.S., 1973; M.S., 1975
- Andrews, Bruce H.** (1974) Assistant Professor of Business Administration; University of Connecticut, B.A., 1967; Polytechnic Institute of New York, M.S., 1969
- Andrews, Samuel George** (1966) Associate Professor of Associate Business Administration and Assistant Director of Associate Degree Studies; Babson Institute, B.S.A., 1964; University of Maine, M.S., 1966
- Angelakos, Evangelos T.** (1973) Research Associate, Biomedical Research Laboratory; Tripolis College, Greece. Diploma (s.c.l.), 1948; Boston University, M.A., 1953; Ph.D., 1956; Harvard University, M.D. (m.c.l.), 1959

- Annett, Donald Archie** (1969) Associate Professor of Business Administration; University of New Hampshire, B.S., 1937; New York University, M.B.A., 1963
- Anspach, Donald Frederick** (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 Edwin** (1960) Associate Professor of Physics; University of Maine, B.A., 1955; Wesleyan University, M.A., 1958; Columbia University, M.S., 1970
- Ayers, George H.** (1959) Associate Professor of Physical Science and Director, Southworth Planetarium; 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.A., 1952; Ph.D., 1965
- Balber, Paula G.** (1973) Assistant Professor of Nursing; Boston University, B.S., 1969; New York University, M.A., 1970
- Banner, Gerald T.** (1968) Reference Librarian; New School for Social Research, B.A., 1965; Pratt Institute, M.L.S., 1967
- Bay, John William** (1965) Dean, School of Business and Economics and Associate Professor of Business and Economics; Saint Ambrose College, B.A., 1961; Boston College, M.A., 1964; Ph.D., 1966
- Bearce, Jeana Dale** (1965) Associate Professor of Art; Washington University, B.F.A., 1951; New Mexico Highlands University, M.A., 1954
- Bellone, Rosemary** (1972) Assistant Professor of Nursing; Virginia Commonwealth University, B.S.N., 1970; Catholic University of America, M.S.N., 1971
- Bemis, A. Nye** (1970) Assistant Professor of Education and Director, In-Service Programs; Gorham State College, B.S., 1964; M.S., 1969
- Benvie, Carol M.** (1976) Instructor in Community Health Nursing, School of Nursing; Simmons College, B.A., 1968
- Berkovitz, Barbara** (1975) Director, Psycho-Educational Clinic; Hofstra University, B.A., 1970, M.S., 1971
- Bernard, Jules Eugene** (1963) Professor of English; Yale University, B.A., 1934; M.A., 1936; Ph.D., 1937
- Berry, Arthur O.** (1955) Coordinator of Vocational Technical Education and Professor of Metals Technology; Gorham State College, B.S., 1950; Pennsylvania State University, Ed.M., 1954; University of Connecticut, Ph.D., 1967
- 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
- Bien, Leon J.** (1970) Assistant Professor of Economics; Boston College, B.A., 1966; Michigan State University, M.A., 1970
- Bigelow, Gordon S.** (1971) Vice President for Educational Services; Brown University, A.B., 1954; University of Maine, Ed.M., 1962; Brigham Young University, A.M., 1966; Ph.D., 1967
- Bishop, John Scott** (1968) Professor of Psychology; University of New Brunswick, B.A., 1953; Dalhousie University, M.A., 1957; University of London, Ph.D., 1958
- Blackstone, Judith** (1976) Counseling and Career Development Psychologist; University of Wisconsin-Madison, B.S., 1965; M.A., 1967
- Bonner, Rowland A.** (1973) Research Associate, Biomedical Research Laboratory; Michigan State University, B.S., 1962; D.V.M., 1964; Boston University, Ph.D., 1972
- Bonney, James H.** (1970) Lecturer, School of Law; Bowdoin College, A.B., 1948; University of Vermont, M.D., 1953; University of Maine, J.D., 1967
- Boothby, Alice W.** (1953) Supervisor of Nurses, Student Health Services; Maine Eye and Ear Infirmary, R.N., 1945; University of Maine at Portland-Gorham, Family Nurse Associate, 1974.
- Bouchard, Joey A.** (1968) Associate Professor of Physical Education; Springfield College, B.S., 1960; M.Ed., 1961; Boston University, C.A.S., 1968

*Numbers in the left hand margin are coded as follows:*

- 1 on leave, Fall semester, 1976
- 2 on leave, Spring semester, 1977
- 3 on leave, Academic year, 1976-77

- Bouchard, Kathleen H.** (1969) Director of Student Affairs; 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
- Brady, James B.** (1969) Head of Acquisitions Services; State University of New York at Albany, B.S., 1967; M.L.S., 1969
- Breton, Lillette Camille** (1969) Assistant Professor of Physical Education; University of Maine, B.S., 1965; M.S., 1968; University of Maine at Orono, C.A.S., 1972
- Briggs, Wayne F.** (1965) Chief Accountant and Director of Purchasing; University of Maine at Portland-Gorham, B.S., 1975
- Brooks, Kenneth T. H.** (1959) University Professor of Education and Centennial Executive Director; University of New Hampshire, A.B., 1947; Boston University, Ed.M., 1948; Ed.D., 1955
- Brown, Harold F.** (1972) Professor of Music; Colby College, A.B., 1935; Westminster Choir College, B.Mus., 1938; Harvard University, A.M., 1942; Michigan State University, Ph.D., 1968
- Brown, William Allen** (1960) Associate Professor of Mathematics and Computer Science; Bowdoin College, B.A., 1954; University of Maine, M.A., 1959
- 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
- Callender, Willard** (1962; 1972) Assessment Specialist and Project Director for Research Center; Bates College, A.B., 1958; University of Connecticut, M.A., 1960; Ph.D., 1967
- Campbell, Richard R.** (1973) Assistant Director Financial Aid Office; University of Maine at Portland-Gorham, B.S., 1974
- Carmichael, Peter** (1975) Director, Cooperative Education, School of Business and Economics; University of Maine, B.S., 1971; University of Massachusetts, M.B.A., 1973
- Carner, Frank K.** (1970) Assistant 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
- Carroll, Constance M.** (1972) Associate Dean, College of Arts and Sciences and Assistant Professor of Classics; Duquesne University, B.A., 1966; Knubly University School of Hellenic Civilization (Athens, Greece), M. Cert., 1967; University of Pittsburgh, M.A., 1969
- Carter, Richard H.** (1964) Associate Professor of Power Technology; Gorham State College, B.S., 1954; University of Maine, Ed.M., 1964; Boston University, C.A.S., 1971
- Chabot, Maurice Joseph** (1965) Associate Professor of Mathematics and Computer Science; University of Maine, B.A., 1961; Bowdoin College, M.A., 1965
- Chamberland, Gerard G.** (1957) Professor of Music; Boston University, B.Mus., 1950; M.M., 1956
- Chandler, Joseph** (1968) Assistant Professor of Business and Economics; Bowdoin College, A.B., 1942; University of Maine, M.B.A., 1967; University of New Hampshire, M.A., 1971
- Chronister, Floyd Brown** (1966) Coordinator of Classroom Teacher Programs and 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
- Clarke, Carolyn K.** (1968) Head of Periodicals Services; University of Maine, B.A., 1968; M.L.S., 1974
- Cobb, Merrill E.** (1966) Professor of Education; University of Maine, B.S., 1949; Ed.M., 1953; University of Massachusetts, Ed.D., 1968
- Coffin, Richard Neal** (1964) Associate Professor of English; Bowdoin College, B.A., 1951; Harvard University, A.M., 1952; Boston University, Ph.D., 1962
- Cohen, Morton I.** (1976) Instructor in Social Welfare; University of California-Los Angeles, B.A., 1949
- Cole, Phillip Albert** (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
- Colucci, Nicholas Dominic, Jr.** (1969) Assistant Professor of Education; Gorham State College, B.S., 1963; University of Connecticut, M.A., 1964; Ph.D., 1969
- Connick, George Percy** (1966) Director of Associate Degree Studies and Acting Vice President for Academic Affairs; Associate Professor of History; Stanford University, B.A., 1957; San Jose State College, M.A., 1960; University of Colorado, Ph.D., 1969
- Conway, Jeremiah Patrick** (1976) Visiting Assistant Professor of Philosophy; College of Arts and Sciences; Fordham University, B.A., 1970; Yale University, M.Phil., 1973
- Coogan, William H., III** (1972) Assistant Professor of Political Science; Boston College, B.A., 1963; Rutgers University, M.A., 1964; University of North Carolina, Ph.D., 1971
- Cooper, Janet K.** (1972) Director of Placement, School of Law; St. Thomas College, M.A.T., 1972
- Cope, Gerald S.** (1975) Lecturer, School of Law; University of Maine, B.A., 1952; Harvard University, J.D., 1955
- Corson, Doane B.** (1970) Superintendent of Buildings and Grounds, Gorham Campus; Southern Maine Vocational Technical Institute, 1958
- Costello, Melissa H.** (1953) Associate Professor of Education; Gorham State College, B.S., 1952; University of Maine, Ed.M., 1957; C.A.S., 1960
- Costello, Richard A.** (1953) Director, Division of Physical Education and 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 of Nursing; Simmons College, B.S., 1960; Boston University, M.S., 1962
- 1 Crochet, Monique Y.** (1970) Associate Professor of French; University of Paris, Sorbonne, B.A., 1959; M.A., 1960; M.A.T., 1960; Ph.D., 1969
- Crosby, Jeanie W.** (1973) Assistant Professor of Education and Program Development Specialist, Maine Teacher Corps; Centre College, B.A., 1963; University of Wisconsin, M.A., 1964; University of Massachusetts, Ed.D., 1973
- Cuprak, Ruth M.** (1973) Assistant Professor of Elementary Education and Child Development Specialist, Maine Children's Resource Center; University of Connecticut, B.S., 1944; Tufts University, M.S., 1976
- Curtis, Nancy Millay** (1976) Instructor in Advanced Medical-Surgical Nursing; University of Maine School of Nursing, B.S., 1968
- Dalvet, Yves Francois** (1968) Associate Professor of French; Laval College, B.A., 1940; New York University, M.A., 1965; Yale University, M.Ph., 1969
- Danovitz, Burt J.** (1976) Instructor in Rehabilitation Counseling; Temple University, B.S.W., 1970; Western Michigan University, M.A., 1971
- Davis, Everett A.** (1966) Assistant Professor of Educational Media; Gorham State College, B.S., 1961; Indiana University, M.S.Ed., 1966; Ed.S., 1972
- Deas, David C.** (1973) Admissions Counselor; University of Maine at Portland-Gorham, B.A., 1971
- Delogu, Orlando E.** (1966) Professor of Law, School of Law; University of Utah, B.S., 1960; University of Wisconsin, M.S., 1963; J.D., 1966
- Deprez, Gregory A.** (1973) Research Assistant, New Enterprise Institute; University of Maine at Portland, B.S., 1965; University of Maine at Gorham, M.S., 1970
- Deprez, Luisa Stormer** (1976) Instructor in 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

- 1 on leave Fall Sem.  
2 on leave Spring Sem.  
3 on leave for Acad. Year

- Dietrich, Craig** (1968) Associate Professor of History; University of Chicago, A.B., 1961; Ph.D., 1970
- Dorbacker, Beatrice M.** (1974) Associate Professor of Nursing; Columbia University, B.S., 1950; M.A., 1957; Boston University, Ed.D., 1972
- Dorsey, F. Donald, Jr.** (1967) Assistant Professor of Biology; Bowdoin College, A.B., 1940; Syracuse University, M.S., 1960; Simmons College, M.S., 1964
- Downey, Loren W.** (1974) Coordinator of Administration Programs and Professor of Education; Drake University, B.A., 1949; University of Oregon, M.S., 1950; University of Arizona, Ed.D., 1966
- Drew, David** (1972) Instructor in Physical Education, Trainer and Coach; Springfield College, B.S., 1967; M.Ed., 1971
- Dubowick, Dorothy Bunker** (1968) Associate Professor of Nursing; Colby College, A.B., 1948; University of Maine at Portland-Gorham, M.S., 1971
- Duclos, Albert Joseph** (1965) Associate Professor of Theatre; University of Maine, B.S., 1963; M.A., 1965
- Duclos, Gloria Shaw** (1962) Associate Professor of Classics; Radcliffe College, A.B., 1949; M.A., 1953; Oxford University, B.A., 1951; M.A., 1955
- Durgin, Frank Albert, 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 Ann** (1962) University Archivist and Associate Professor of Library Service; New England Conservatory of Music, B.Mus., 1945; Simmons College, M.S., 1962
- 2 **Eastman, Joel Webb** (1970) Associate Professor of History; University of Maine at Orono, B.A., 1962; M.A., 1965; University of Florida, Ph.D., 1973
- Edwards, Mary Jordan** (1971) Assistant Professor of Advanced Medical-Surgical Nursing, School of Nursing; Cornell University, New York Hospital School of Nursing, B.S.N., 1952
- Ellis, Ann P.** (1973) Assistant Professor of Nursing; University of Maine at Orono, B.S., 1964; Boston University, M.S., 1967
- Ellis, Edna M.** (1973) Instructor in Nursing; University of Maine at Portland-Gorham, B.S., 1972; Boston University, M.S., 1973
- Emerson, Horton W., Jr.** (1962) Professor of History; Colby College, A.B., 1949; Yale University, Ph.D., 1957
- Emery, Virginia L.** (1966) Administrative Assistant to the President; Shaw's Business College, 1938
- Estes, Robert A.** (1966) Professor of Mathematics and Computer Science; Bowdoin College, A.B., 1958; University of Kansas, M.A., 1961; University of Michigan, Ph.D., 1970
- Farrar, John North** (1966) Director of Counseling, Continuing Education and Summer Session; University of Maine, B.A., 1951; M.Ed., 1958; C.A.S., 1962
- Faulkner, Howard M.** (1970) Associate Professor of Graphics; Massachusetts State College of Fitchburg, B.S., 1957; Northeastern University, M.Ed., 1960
- Feig, Konnilyn G.** (1972) Dean, College of Arts and Sciences and Associate Professor of History; University of Montana, B.S., 1958; B.A., 1959; M.A., 1963; University of Washington, Ph.D., 1969
- Feldman, Stephen R.** (1972) Associate Professor of Law, School of Law; Duke University, A.B., 1959; Fordham University, LL.B., 1965; Harvard University, LL.M., 1972
- 2 **Fickett, Reginald N.** (1964) Associate Professor of Education; Gorham State College, B.S., 1958; University of Maine, Ed.M., 1960; C.A.S., 1968
- Findlay, Robert Walker** (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 and Computer Science; 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
- Fitzpatrick, Albert Arthur** (1968) Professor of Business and Economics; University of Southern California, B.S., 1949; M.B.A., 1951; Baylor University, M.S., 1955; University of Southern California, Ph.D., 1962
- Flaherty, Agnes E.** (1973) Clinical Associate in Nursing at the Maine Medical Center; Columbia University, B.S., 1950; Catholic University of America, M.S., 1961



- Folsom, Robert Eugene** (1968) Associate Professor of Physical Education; Springfield College, B.S., 1953; Boston University, Ed.H., 1963
- Foster, Carolyn Neidig** (1966) Associate Professor of Mathematics and Computer Science; Douglass College (Rutgers), A.B., 1958; Purdue University, M.S., 1961; Bowdoin College, A.M., 1966
- Fournier, Margaret A.** (1976) Instructor, School of Nursing, Community Health Nursing; B.S.N., Fitchburg State College, 1972; M.S.N., Boston University, 1976
- Franklin, Patricia R.** (1970) Associate Professor of Art; Pratt Institute, F.F.A., 1962; Tulane University of Louisiana, M.F.A., 1970
- French, Robert K.** (1969) Associate Professor of Geography-Anthropology and Director, Museum of Man; Dartmouth College, A.B., 1957; Northeastern University, M.Ed., 1967; Clark University, M.A., 1972
- Fridinger, Walter Peter** (1958) Vice President for Finance and Administration; Lebanon Valley College, B.S., 1938
- Fullam, David C.** (1970) Associate Professor of Sociology; Colby College, B.A., 1960; University of New Hampshire, M.A., 1965; M.A., 1969
- Gagne, David L.** (1975) Veterans Affairs Coordinator; Keene State College, B.A., 1973
- Gainey, Louis F., Jr.** (1976) Assistant Professor of Biology; Florida State University, B.S., 1969; M.S., 1972; Ph.D., 1976
- Ganzevoort, Herman** (1973) Assistant Professor of History; Calvin College, B.A., 1965; Wayne State University, M.A., 1967
- Garbrecht, Donald L.** (1962) Law Librarian and Professor of Law, School of Law; University of Minnesota, A.B., 1958; LL.B., 1961
- Gavin, William Joseph** (1968) Associate Professor of Philosophy; Fordham University, B.A., 1965; M.A., 1967; Ph.D., 1970
- Gayton, William F.** (1974) Assistant Professor of Psychology; Springfield College, B.S., 1963; University of Maine, M.A., 1965; Ph.D., 1968
- Gieringer, Romona** (1972) Serials Librarian, School of Law
- Giguere, Madeleine Dinora** (1967) Professor of Sociology; College of New Rochelle, B.A., 1947; Fordham University, M.A., 1950; Columbia University, M.Phil. 1973
- Giles, Clifton F., Jr.** (1969) University Librarian; University of Massachusetts, B.A., 1960; University of Illinois, M.L.S., 1963
- Godfrey, Edward S.** (1962) Professor of Law, School of Law; Harvard University, A.B., 1934; Columbia University, J.D., 1939
- Gold, Joel I.** (1973) Assistant Professor of Associate Business Administration; Pace University, B.B.A., 1968; Bernard Baruch College, M.B.A., 1972
- Goodwin, Jeanette L.** (1955) Associate Professor of Physical Education and Coordinator of Dance; Sargent College, B.S., 1944; Springfield College, Ed.M., 1955
- Gorman, Gerald E.** (1976) Professor of Education; State College at Bridgewater, Massachusetts, B.S., 1962; Indiana University, M.S., 1974
- Gramling, Lawrence** (1974) Instructor in Accounting; Northeastern University, M.B.A., 1970
- Grange, Joseph** (1970) Associate Professor of Philosophy; St. Joseph's College, B.A., 1961; Fordham University, M.A., 1965; Ph.D., 1970
- Grass, Calvin F.** (1966) Associate Professor of Physical Science; Boston University, A.B., 1949; University of Maine, Ed.M., 1954; Ohio State University, Ph.D., 1972
- Gray, Marie L.** (1970) Acting Director, Urban Adult Learning Center; Catholic University of America, B.A., 1967; New York University, M.S., 1970
- 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
- Gregory, David D.** (1972) Professor of Law, School of Law; Duke University, B.A., 1964; University of Maine, LL.B., 1968; Harvard University, LL.M., 1972
- Gross, Richard** (1976) Assistant Professor of Philosophy; Queens College, B.A., 1967; M.A., 1971
- 1 on leave Fall Sem.*  
*2 on leave Spring Sem.*  
*3 on leave for Acad. Year*

- Grzelkowski, Slawomir A.** (1973) Assistant Professor of Sociology; University of Warsaw, Poland, M.A., 1962; Indiana University, Ph.D., 1974
- Guay, Merle Dana** (1969) Professor of Mathematics and Computer Science; Tufts University, B.S., 1958; University of Maine, M.A., 1960; Michigan State University, Ph.D., 1967
- Haas, Barbara A.** (1971) Assistant Professor of Advanced Medical-Surgical Nursing; New York University, B.S., 1961; M.A., 1965
- Hackett, George F.** (1968) Associate Professor of Education and Director, Advanced Study Programs; Central Michigan University, B.A., 1952; University of Michigan, M.A., 1957
- Hall, George E.** (1974) Circulation Librarian, School of Law; Idaho College, B.A., 1967; University of Chicago, M.L.S., 1973
- Hall, Owen C.** (1952) Associate Professor of Accounting; Portland University, B.S., 1955; Maine Society of Public Accountants, C.P.A. (Maine)
- Hamrin, Jeannie M.** (1976) Assistant Professor of Special Education; Springfield College, B.S., 1960; Columbia University, M.A., 1961; Ed.D., 1974.
- Hanna, John G.** (1963) Professor of English; Trinity College, B.S., 1936; Harvard University, B.A., 1946; Boston University, Ph.D., 1958
- Hansen, Edwin R.** (1964) Professor of Communication; Tufts University, B.S., 1936; University of Denver, M.A., 1947; Cornell University, Ph.D., 1952
- Hare, Parnell S.** (1963) Associate Professor of Physical Science; University of Maine, B.S., 1956; University of New Hampshire, M.S., 1960
- Hawkes, David B.** (1971) Lecturer, School of Law; University of Maine, B.S., 1966; J.D., 1969; Boston University, LL.M., 1970; C.P.A., 1971
- Hayes, Michael Ernest** (1976) Visiting Professor of Social Welfare, College of Arts and Sciences; Lawrence University, B.A., 1965; University of Michigan, M.A., 1966; M.S.W., 1969; Ph.D., 1972
- Hazelton, Penny** (1976) Associate Professor of Law and Associate Law Librarian; Linfield College, B.A., 1969; University of Washington, M.A., 1976
- 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) Visiting Assistant Professor of Mathematics; University of Maine at Orono, B.A., 1968; M.A., 1970; University of Minnesota, M.S., 1976
- Heel, Helen E.** (1953) Associate Professor of Music; Gorham State College, B.S., 1942; University of Michigan, M.M., 1948
- Heisler, Edwin A.** (1972) Lecturer, School of Law; Tufts University, B.S., 1957; George Washington University National Law Center, LL.B., 1965
- Henderson, Susan J.** (1973) Instructor in Nursing; St. Luke's Hospital, School of Nursing, R.N., 1963; Fairleigh Dickinson University, B.S., 1966; New York University, M.A., 1973
- Henry, Jean** (1976) Assistant Professor of Art; Florida Atlantic University, B.A., 1971; University of Miami, M.A., 1973
- Hernandez, Adele Betancourt** (1962) Part-time Instructor in Spanish and Director of Language Laboratory; M.A., Florida State Christian College, 1973
- Hewitt, Duncan A.** (1976) Assistant Professor of Art; Colby College, B.A., 1971; University of Pennsylvania, M.F.A., 1975
- Higgins, George Michael** (1971) Assistant Business Manager; University of Maine in Portland, B.S., 1971
- Hodgdon, Paula D.** (1967) Professor of Physical Education; Lasell Junior College, A.A., 1948; Beaver College, B.A., 1950; Columbia University, M.A., 1952; Springfield College, D.P.E., 1973
- Hodges, Franklin D.** (1966) Associate Professor of Geography; Farmington State College, B.A., 1961; Clark University, M.A., 1966
- Hodson, D. Bradlee** (1973) Assistant Professor of Accounting; University of Maine at Orono, B.S., 1968; University of Pennsylvania, M.S., 1969; C.P.A. (Massachusetts)
- Holmes, Peter Karl** (1968) Associate Professor of Biology; Bowdoin College, A.B., 1956; Wesleyan University, M.A., 1958; University of Illinois, Ph.D., 1964

- Hopkinson, David Bradford** (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)
- Horne, Edwin C.** (1971) Associate Director of Admissions; University of New Hampshire, B.A., 1958; M.Ed., 1968
- Horton, Donald Bion** (1969) Lecturer in Biology and Executive Director, The Research Institute of the Gulf of Maine (TRIGOM); Union College (New York), B.S., 1954; University of Rhode Island, M.S., 1958; Ph.D., 1965
- Houlihan, John J.** (1975) Assistant Professor of Business Law; Holy Cross College, A.B., 1969; Harvard Law School, J.D., 1972
- Howard, Albert A.** (1970) Head of Cataloging Services; Brown University, A.B., 1951; University of Kentucky, M.S. in L.S., 1955
- Hunt, Harry Draper, III** (1965) Professor of History; Harvard University, B.A., 1957; Columbia University, M.A., 1960; Ph.D., 1968
- Hymoff, Ira H.** (1971) Director of Counseling and Career Development; Colby College, B.A., 1965; University of Maine at Orono, Ph.D., 1970
- Ingraham, Hollie L.** (1973) Counselor of Continuing Education Division and Summer Session; University of Maine, B.A., 1967; University of Maine at Portland-Gorham, M.S., 1972
- Irish, Joel W.** (1971) Assistant Professor of Mathematics and Computer Science; Colby College, B.A., 1967; University of New Hampshire, M.S., 1969; Ph.D., 1975
- Jagolinzer, Philip** (1966) Associate Professor of Accounting; Clark University, A.B., 1958; University of Rhode Island, M.S., 1960; C.P.A. (Maine, Maryland)
- Jaques, John Frederick** (1946) Professor of English; Bowdoin College, A.B., 1943; Columbia University, A.M., 1946; Ph.D., 1971
- Jellema, John** (1976) Assistant Professor in Industrial Education; Calvin College, B.A., 1960; Eastern Michigan University, M.A., 1968; Michigan State University, Ph.D., 1976
- Jensen, Helena Marie** (1967) Associate Professor of Nutrition; University of Maine, B.S., 1943; Pennsylvania State University, M.Ed., 1951
- Johnson, Bruce** (1974) Director of Student Financial Aid
- Johnson, Sheila A.** (1968) Reference Librarian; Boston College, B.S., 1967; University of Maine, M.L.S., 1975
- Julavits, William F.** (1970) Assistant Dean and Lecturer, School of Law; Amherst College, B.A., 1964; University of Maine, LL.B., 1968
- Kane, Katharine K.** (1974) Counselor, York County Community College Services; Trinity College, B.A., 1968
- Kane, Nancy** (1974) Coordinator of Residence Life; New York University, B.A., 1969; Michigan State University, M.A., 1971
- Kane, Raymond Paul** (1965) Director of Conferences and Special Programs, Continuing Education Division; University of Maine, B.S., 1964
- Karabin, Jacqueline** (1973) Instructor in Nursing and Chairman, Department of Community Health Nursing; University of Michigan, B.S.N., 1967; M.P.H., 1973
- Kazenski, John T.** (1973) Director of Physical Plant; U.S. Naval Academy, B.S., 1960
- Keating, Judith A.** (1972) Head of Circulation Services; University of Maine, B.A., 1971; Emory University, M.L.N., 1976
- Kennedy, Jane F.** (1976) Student Financial Aid Counselor; Stonehill College, B.A., 1976
- Kern, Abraham K.** (1959) Associate Professor of Botany and Zoology; Bowdoin College, A.B., 1936; University of Maine, M.Ed., 1956
- Keyser, John G.** (1974) Associate Registrar; University of Wisconsin, B.S., 1962; M.S., 1966
- Kivatisky, Russell John** (1974) Assistant Professor of Communication; State University of New York, Brockport, B.S., 1970; M.A., 1971; Bowling Green State College University, Ph.D., 1975

1 on leave Fall Sem.

2 on leave Spring Sem.

3 on leave for Acad. Year

- Knowlton, Suzanne L.** (1968) Assistant University Librarian; University of Kansas, B.A., 1960; University of Denver, M.A., 1963
- Kratzer, Richard O.** (1971) Associate Professor of Mathematics and Computer Science; 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
- 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
- Ladley, Anne** (1973) Director, Office of Equal Employment Opportunity; University of Pittsburg, B.A., 1953; New York University, M.S.W., 1962
- LaFrance, Arthur B.** (1973) Professor of Law, School of Law; Dartmouth College, B.A., 1960; Yale University, LL.B., 1963
- 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
- Lazar, Bonnie** (1975) Visiting Lecturer in Social Welfare; State University of New York at Buffalo, B.A., 1970; Boston University, M.S.S.S., 1972
- Lehman, Peter M.** (1974) Coordinator Criminal Justice Program and Visiting Professor of Sociology; Oberlin College, A.B., 1968; Meadville Theological School University of Chicago, M.A., 1970
- 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 of Educational Media; State University of New York, B.S., 1965; University of Connecticut, M.A., 1976
- Locke, Phyllis R.** (1968) Periodicals Librarian; University of Maine in Portland, M.L.S., 1968
- Loper, Merle W.** (1971) Professor of Law, School of Law; Northwestern University, B.A., 1962; University of Chicago, J.D., 1965; Harvard University, LL.M., 1971
- Lyons, Charles M.** (1973) Assistant Professor of Special Education; St. Francis Xavier University, B.A., 1966; University of Hartford, M.Ed., 1970
- MacDonald, Stephen A.** (1970) Associate Professor of Mathematics and Computer Science; 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) Assistant Professor of Nursing; Boston University, B.S., 1963; M.A., 1965; M.S., 1974
- McCaslin, Millard P.** (1968) Superintendent of Buildings and Grounds, Portland Campus
- McGuire, Raymond G.** (1973) Professor of Law, School of Law; Canisius College, B.S., 1960; Harvard University, LL.B., 1964; Columbia University, LL.M., 1968
- McKeil, Richard Lloyd** (1966) Associate 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. in International Relations, 1967
- McMahon, Robert Charles** (1969) Associate Professor of Economics; University of Washington, B.A., 1959; M.A., 1964; Lehigh University, Ph.D., 1970
- Maiman, Richard John** (1971) Associate Professor of Political Science; Lake Forest College, B.A., 1967; Brown University, Ph.D., 1972
- Mainville, Waldeck Ernest, Jr.** (1965) Associate Professor of Mathematics and Computer Science and Assistant Dean, College of Arts and Sciences; University of Maine, B.S., 1960; Bowdoin College, A.M., 1964; Bowling Green State University, Sp.Ed., 1965; Michigan State University, Ph.D., 1972

- Malik, Hasan Muhammad** (1974) Associate Professor of Educational Psychology; Michigan State University, B.A., 1957; M.A., 1959; University of Oregon, Ph.D., 1973
- Malmude, Alice Probst** (1972) Assistant Professor of Nursing; New York University, B.S., 1960; M.S., 1962
- Manck, William J.** (1970) Assistant Professor of Marketing; University of Maine, B.S., 1957; College of the City of New York, M.B.A., 1966
- Manuel, Charlotte** (1971) Instructor, Urban Adult Learning Center; University of Maine at Portland-Gorham, B.A., 1969
- Marshall, Jan M.** (1970) Associate Professor of Nursing; Boston University, B.S., 1968; M.S., 1971
- 3 Martin, Thomas Andrew** (1965) Assistant Professor of Physical Education; University of Maine, B.S., 1963; M.Ed., 1969
- Masure, Lorraine D.** (1973) Counseling Director, York County Community College Services; Nasson College, B.A., 1970
- Mazurkiewicz, Michael, Jr.** (1969) Associate Professor of Biology; Rutgers University, B.S., 1961; M.S., 1964; University of Connecticut, Ph.D., 1970
- Mellor, Judith A.** (1973) Counseling Director, York County Community College Services; Springfield College, B.S., 1966; M.Ed., 1967
- Mendelson, Jane I.** (1974) Instructor in Nursing; Cornell University, B.S., 1968; Columbia University, M.S., 1971
- Menninger, Harold P.** (1970) Associate Director of Counseling and Career Development and Assistant Professor of Education; University of Maryland, B.S., 1963; C. W. Post College (Long Island University), M.S., 1967; University of New Mexico, Ed.D., 1970
- Milbury, Allen W.** (1963) Associate Professor of Education and Director of Educational Media Center; University of New Hampshire, B.S., 1960; Indiana University, M.S., Ed.D., 1969
- Millard, Ronald W.** (1973) Research Associate, Biochemical Research Laboratory; Tufts University, B.S., 1963; Boston University, Ph.D., 1969
- Miller, N. Edd** (1973) President and Professor of Communication; University of Texas, B.S., 1939; M.A., 1940; University of Michigan, Ph.D., 1952
- Miller, Robert N.** (1946) Professor of Physical Science; Colby College, A.B., 1936
- Milligan, Patricia** (1975) Associate Cataloger, School of Law; Ohio State, B.A., 1971
- Mitchell, Joane R.** (1976) Assistant Professor of Reading; College of New Rochelle, A.B., 1951; Boston University, M.Ed., 1958; Harvard University, D.Ed., 1967
- Mitchell, John** (1947) Coordinator of Graduate Programs in Industrial Education and Professor of Industrial Arts; Fitchburg State College, B.S., 1939; University of Minnesota, M.A., 1947; Pennsylvania State University, Ed.D., 1954
- 2 Monsen, Sverre 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 Dean** (1968) Assistant Professor of Education; University of Maine, B.S., 1966; M.Ed., 1968
- Moore, Michael G.** (1967) Associate Professor of Art; Syracuse University, B.F.A., 1963; University of Washington, M.F.A., 1967
- Moore, William H.** (1971) Assistant Professor of Metals Technology; Gorham State College, B.S., 1969; University of Maine at Portland-Gorham, M.Ed., 1970
- Morrill, David** (1970) Associate Professor of Graphic Arts; Moorehead State College, B.S., 1967; Texas A & M University, M.Ed., 1968; Ed.D., 1970
- Mortensen, William G.** (1966) Director of Continuing Education; University of Maine, B.S., 1961; M.S., 1966
- Moulton, John K.** (1968) Associate Professor of Mathematics and Computer Science; Harvard University, A.B., 1936; Ed.M., 1940; Bowdoin College, M.A., 1962; Ed.D., (Hon.), 1970
- Munsey, William J.** (1965) Director of Admissions; University of Maine, B.S., 1960; Boston University, M.Ed., 1964

- 1 on leave Fall Sem.*  
*2 on leave Spring Sem.*  
*3 on leave for Acad. Year*

- Murphy, Thomas J., Jr.** (1972) Instructor, Urban Adult Learning Center; St. Francis Xavier University, B.A., 1969
- Najarian, Haig Hagop** (1966) Professor of Biology; University of Massachusetts, B.S., 1948; Boston University, M.A., 1949; University of Michigan, Ph.D., 1953
- Nannay, Robert William** (1972) Associate Professor of Industrial Arts; Trenton State College, B.A., 1964; M.A., 1967; University of Maryland, Ed.D., 1970
- Nelson, Clifford V.** (1973) Research Associate, Biomedical Research Laboratory; Massachusetts Institute of Technology, B.S., 1942; University of London, Ph.D., 1953
- 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
- Novak, Irwin** (1971) Associate Professor of Geology; Hunter College, A.B., 1966; University of Florida, M.S., 1968; Cornell University, Ph.D., 1971
- O'Donnell, C. Michael P.** (1970) Associate Professor of Early Childhood Education; University of Maine, B.S., 1958; M.S., 1961; Syracuse University, Ed.D., 1968
- O'Reilly, Charles A.** (1966) Associate Professor of English; Colby College, B.A., 1949; Antioch-Putney Graduate School of Teacher Education, M.A., 1952
- Padula, Alfred L.** (1972) Assistant 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; Maine Eye and Ear Infirmary, R.N., 1944
- Palmer, Martha** (1976) Circulation Librarian, School of Law Library; University of Maine at Orono, B.A., 1974
- Paradise, Noel E.** (1967) Professor of Psychology; University of Maryland, A.B., 1948; University of Michigan, Ph.D., 1960
- Pauk, George L.** (1976) Director, Family Nurse Associate Program, School of Nursing; State University of Iowa, M.D.
- Pearce, John Alden** (1965) Professor of Political Science; University of Maine, B.S., 1962; University of Virginia, M.A., 1965; Ph.D., 1971
- Pence, John H.** (1973) Counseling Director, Biddeford, York County Community College Services; St. Francis College, B.A., 1969
- Pendleton, James W.** (1967) Associate Professor of Physical Science; Keene State College, B.Ed., 1959; Oregon State University, M.S., 1963
- Perlman, Stephen** (1975) Assistant Professor of Anthropology; Boston University, B.A., 1970; University of Massachusetts, M.A., 1973
- Perry, Betsy J.** (1973) Instructor in Nursing; University of Michigan, B.S.N., 1969; M.S., 1972
- Peters, Doris M.** (1964) Registrar, School of Law
- Petrucelli, Gerald F., Jr.** (1968) Lecturer, School of Law; Boston College, A.B., 1964; LL.B., 1967
- Philippi, Harlan A.** (1972) Dean, College of Education and Professor of Education; University of Wisconsin, B.S., 1949; M.S., 1953; Northwestern University, Ph.D., 1962
- Pic'l, Melvin E.** (1969) Associate Professor of Communication; Pepperdine College, B.A., 1958; M.A., 1962
- Pine, Mary A.** (1974) Coordinator and Assistant Professor of Elementary Education and Early Childhood Specialist; Boston University, Ed.B., 1952; Ed.M., 1955; Ed.D., 1975
- Pitkin, Rhoda A.** (1974) Assistant Professor of Nursing; University of Vermont, B.S., 1956; Boston University, M.S., 1974
- Plowman, E. Grosvenor** (1966) Lecturer in Business Administration; University of Chicago, Ph.D., 1937
- Potter, Judy R.** (1972) Professor of Law, School of Law, and Director, Clinical Practice Program; Cornell University, B.A., 1960; University of Michigan Law School, J.D., 1967
- Power, Thomas Amber** (1966) Associate Professor of Theatre; University of Maine, B.S. in Ed., 1964; M.A., 1968
- Pranger, Eugene** (1973) Assistant to Director of the Center for Research and Advanced Study; Indiana University, B.S., 1971

- Provencher, Gerald M.** (1975) Assistant Professor of Chemistry; Wayne State University, B.A., 1962; M.S., 1966; University of Windsor, Ph.D., 1972
- Prunty, Bert S., Jr.** (1973) Dean, School of Law and Professor of Law, School of Law; Drake University, B.A., 1948; Drake University Law School, J.D., 1950
- Puopolo, Vito** (1970) Associate Professor of Music; New England Conservatory of Music, B.M., 1955; M.M., 1963; Michigan State University, Ph.D., 1970
- Quinn, Horatio** (1973) Chief, Department of Police and Safety; University of Maine at Augusta, A.S., 1973
- Rakovan, Lawrence Francis** (1967) Associate Professor of Art; Wayne State University, B.S., 1967; Rhode Island School of Design, M.A., 1969
- Raybould, Patricia D.** (1970) Instructor in Physical Education; University of Oregon, B.A., 1964; Boston University, M.Ed., 1967
- Reuter, John E.** (1969) Associate Professor of English; University of New Hampshire, A.B., 1958; University of Rochester, M.A., 1963; Ph.D., 1968
- Rhoads, Roger Hanson** (1964) Professor of Education; Colby College, B.A., 1935; University of Michigan, M.A., 1938; University of Colorado, Ph.D., 1961
- Rich, Barbara** (1974) Assistant 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
- Roberts, James Weston** (1967) Associate Professor of Political Science; San Diego State College, B.A., 1954; University of North Carolina, Ph.D., 1973
- Roche, Mildred** (1971) Nursing Director, Family Nurse Associate Program; Lecturer in Community Health; University of Vermont, B.S., 1951; Catholic University of America, M.S.N., 1966
- Rodgers, Marjorie J.** (1970) Assistant Director of Admissions; University of Massachusetts, B.S., 1966
- Rogers, Alvin D.** (1952) Editor of Publications; Gordon College, Th.B., 1935
- Rogers, Paul Carney** (1965) Professor of Mathematics; College of the Holy Cross, B.N.S., 1945; Boston University, M.A., 1948
- Rogoff, Martin A.** (1972) Professor of Law, 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
- 3 Romanyszyn, John Mike** (1946-1950; 1953) Margaret Payson Professor of Social Welfare; University of Oklahoma, B.A., 1942; University of Chicago, M.A., 1952
- 2 Rootes, Minor R.** (1966) Associate Professor of Theatre; University of California, Santa Barbara, A.B., 1954; San Francisco State College, M.A., 1961
- Roscoe, Marjorie Mary** (1966) Associate Professor of Nursing; Simmons College, B.S. in P.H.N., 1950; University of Michigan, M.P.H., 1959
- Rosen, Kenneth F.** (1965) Associate Professor of English; Pennsylvania State University, B.A., 1962; University of Iowa, M.F.A., 1964
- Rost, Mary Ann** (1972) Director, Bureau of Continuing Education for Nursing and Assistant Professor of Nursing; Boston College School of Nursing, B.S., 1964; University of Massachusetts, M.S., 1972
- Rothenberg, Christine M.** (1971) Information Specialist; College of Wooster, B.A., 1966; Columbia University, M.A., 1967
- Rumery, Joyce V.** (1974) Library Circulation Associate; University of Maine at Portland-Gorham, B.A., 1973
- Rutherford, Phillip R.** (1966) Professor of English; East Texas University, B.A., 1962; M.A., 1964; Ph.D., 1966
- Saldanha, Estelita Longuinhos** (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) Director of Engineering and Planning; University of Maine, B.S., 1956

1 on leave Fall Sem.

2 on leave Spring Sem.

3 on leave for Acad. Year

- Sanborn, Jane Oberholtzer** (1961) Associate Professor of Psychology; Wilson College, A.B., 1942; University of California, Los Angeles, Ed.D., 1961
- Schleh, Eugene P. A.** (1965) Professor of History; Union College, B.A., 1961; Yale University, M.A., 1962; Ph.D., 1968
- Schwanauer, Francis** (1962) Professor of Philosophy; University of Stuttgart and Tubingen, Ph.D., 1959
- Schwanauer, Johanna** (1963-1965) (1968) Part-time Instructor in German, Wellesley College, B.A., 1957
- 1 **Schwinck, Lotte** (1969) Associate Professor of Biology; University of Tubingen, Dr. rer. nat., 1956
- Selkin, Michael** (1970) Assistant Professor of English and Director of Writing Laboratory; Columbia College, A.B., 1961; Cornell University, M.A., 1963; Columbia University, Ph.D., 1975
- Shoobs, Dorothy S.** (1973) Associate Professor of Nursing; New York University, B.S., 1953; M.A., 1960; Ph.D., 1973
- Simonds, Stephen P.** (1971) Director, Human Services Development Institute; University of New Hampshire, A.B., 1948; University of Chicago, M.A., 1953
- 2 **Slavick, William H.** (1970) Associate Professor of English; University of Notre Dame, B.A., 1949; M.A., 1951; Ph.D., 1971
- Small, William Ullrich** (1967) Associate Director of Continuing Education and Summer Session; Bowdoin College, B.S., 1949; Columbia University, M.B.A., 1951
- 3 **Smith, Alan Guy** (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, Halsey** (1972) Director, Center for Research and Advanced Study and Director of Public Service; Princeton University, A.B., 1943; University of Maine in Portland, LL.D., (Hon.), 1962
- Snow, Roger V., Jr.** (1967) Director of Publications and Public Information; Williams College, B.A., 1940
- Solotaire, Patricia** (1973) Administrative Director, Allagash Environmental Institute; Bard College; B.A., 1953; New York University, M.A., 1965
- Sottery, Theodore Walter** (1956) Professor of Chemistry; Dartmouth, B.N.S., 1946; University of Maine, M.S., 1956; Ph.D., 1966
- Soule, William Hilton** (1965) Director of Clinical Experiences and Professor of Education; Bowdoin College, A.B., 1936; Bates College, M.Ed., 1941; Boston University, Ed.D., 1967
- Southworth, Robert S.** (1963) Coordinator of Counselor Education and Professor of Educational Psychology; Boston University, B.A., 1951; Ed.M., 1958; Ed.D., 1965
- 1 **Soychak, Anthony G.** (1965) Assistant Professor of Mathematics and Computer Science; University of Maine, B.S., 1959; Bowdoin College, M.A., 1963
- Stearns, Gene F.** (1972) Professor of Education and Director of Student Teaching, Elementary Education; Plymouth State College, B.Ed., 1962; University of New Hampshire, M.Ed., 1968; Ball State University, Ed.D., 1970
- Steele, William Paul** (1967) Associate Professor of Theatre; University of Maine, B.S.Ed., 1964; M.A., 1967
- Steinman, Richard** (1966) Associate Professor of Social Welfare; University of Missouri, B.A., 1949; Columbia University, M.S., 1952; Brandeis University, Ph.D., 1968
- Stone, Judith Thelma** (1968) Acting Dean, School of Nursing and Associate Professor of Nursing; University of Maine, B.S., 1964; University of Pennsylvania, M.S.N., 1966
- Strebe, Ruth** (1975) Assistant Project Director, Telelecture Bureau of Continuing Education for Nursing; School of Nursing; University of Buffalo, B.S., 1958; Columbia University, M.A., 1961.
- Stump, Walter R.** (1968) Associate Professor of Theatre; San Diego State College, B.A., 1959; M.A., 1960; Indiana University, Ph.D., 1974
- Sturgeon, Richard Howard** (1962) Associate Professor of Education and Assistant Director of Associate Degree Studies; University of Maine, B.S., 1960; M.Ed., 1966



- Sullivan, James Vincent** (1959) Professor of Physical Education and Recreation and Director of Therapeutic Recreation; University of Maine, B.S.Ed., 1951; University of Delaware, M.Ed., 1954; Boston University, Ed.D., 1971
- Sytsma, Donald** (1972) Assistant Professor of Psychology; Arizona State University, B.A., 1965; University of Waterloo, Ph.D., 1971
- Talbot, Franklin** (1963) Head of Reference Services and Associate Professor of Library Service; University of Maine, B.A., 1946; Columbia University, M.S., 1949
- Talbot, Jeanne Georgianna** (1968) Associate Professor of Nursing; Boston College, B.S., 1964; M.S., 1967
- Tatro, Suzanne E.** (1972) Assistant Professor of Nursing; D'Youville College, B.S., 1968; University of Rochester, M.S., 1972
- Taylor, Edward W.** (1975) Assistant Professor of Industrial Education; Trenton State College, B.A., 1970; M.Ed., 1972.
- Taylor, Lawrence A.** (1968) Associate Professor of Business Administration; University of Maine, B.S., 1967; M.B.A., 1968
- Temple, Nelle** (1975) Assistant Professor of Political Science; Smith College, A.B., 1968
- Theriault, Anne M.** (1975) Executive Director, The Alumni Association of the University of Maine at Portland-Gorham; University of Maine in Portland, A.B.A., 1967
- Tiedemann, Janet B.** (1974) Instructor in Nursing; Skidmore College, B.S., 1956; Boston University, M.S., 1974
- Tizon, Judith** (1972) Assistant Professor of Anthropology; University of Illinois, B.A., 1965; University of California, M.A., 1969
- Tryon, Phyllis Arleen** (1965) Associate Professor of Nursing; Boston University, B.S., 1958; Yale University, M.S.N., and C.N.M., 1962
- Tukey, Geraldine M.** (1970) Associate Professor of Nursing; Mercy College of Detroit, B.S., 1957; Boston University, M.S., 1964
- Turner, Anne Lewis** (1976) Assistant Director of Psycho-Educational Clinic; University of Connecticut, B.S., 1972; M.A., 1974
- 2 Ubans, Juris K.** (1968) Associate Professor of Art; Director, Art Gallery; Syracuse University, B.F.A., 1966; Pennsylvania State University, M.F.A., 1968
- 2 Ubans, Mara** (1970) Associate Professor of German; Indiana University, A.B., 1960; University of Southern California, M.A., 1962; Ph.D., 1975
- Upthegrove, H. Nelson** (1974) Director, New Enterprise Institute, Center for Research and Advanced Study; California Institute of Technology, Ph.D., 1954
- Ventresco, Fiorello B.** (1966) Associate Professor of History; Boston University, A.B., 1959; University of Michigan, M.A., 1961
- Vincent, Stanley J.** (1959) Assistant Professor of English; Boston University, B.A., 1949; Columbia University Teachers College, M.A., 1950
- Walker, Paul R.** (1970) Associate Professor of Reading; Boston College, A.B., 1960; Gorham State College, M.S.Ed., 1967; University of Maine, Ed. D., 1970
- Walkling, Robert A.** (1969) Associate Professor of Physics; Swarthmore College, B.A., 1953; Harvard University, M.S., 1954; Ph.D., 1962
- Ward, Thomas M.** (1976) Visiting Associate Professor of Law, School of Law; University of Pennsylvania, B.A., 1965; Notre Dame Law School, LL.B., 1968; University of Illinois Law School, LL.M., 1970
- Waters, Harry Joseph** (1963) Professor of Business and Economics and Director, The Management Institute; Hofstra College, B.B.A., 1954; New York University, M.B.A., 1955; Ph.D., 1964
- Weeks, Ernest E.** (1967) Professor of English; Bowdoin College, A.B., 1939; Tufts University, M.A., 1949; Columbia University, Ph.D., 1965

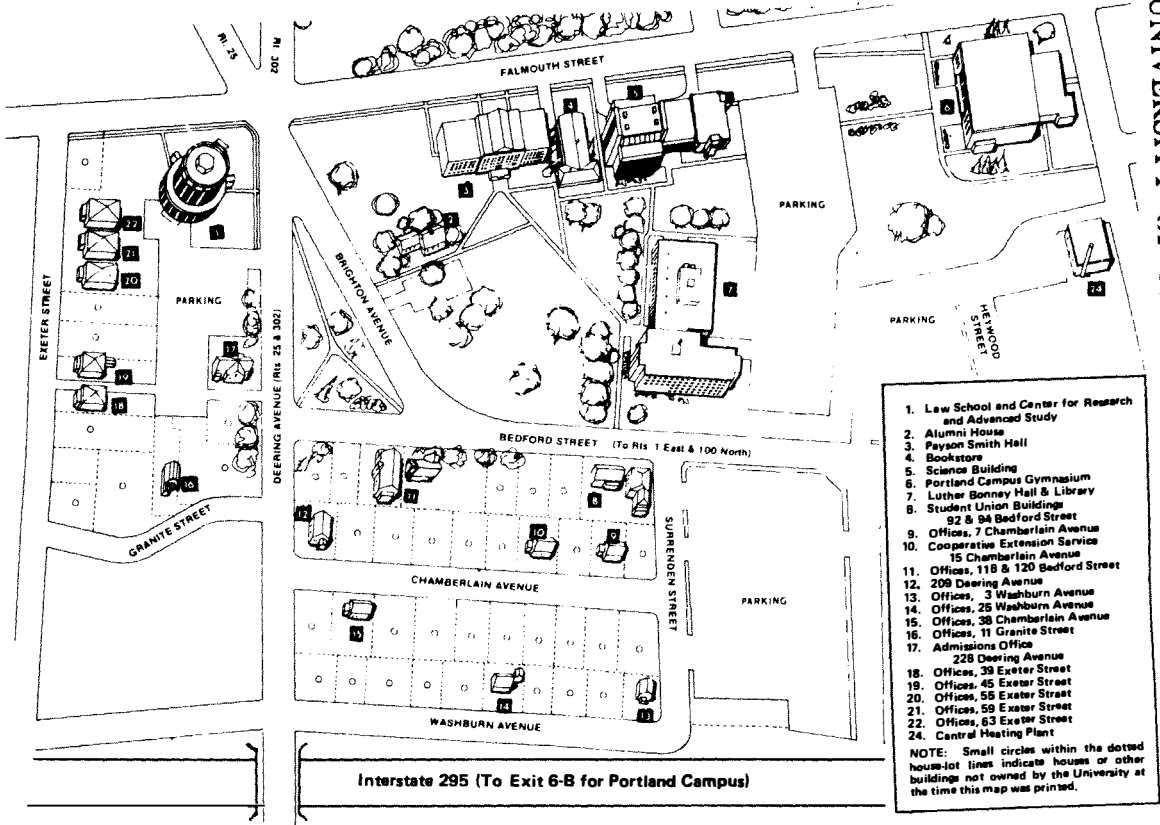
1 on leave, Fall Sem.

2 on leave Spring Sem.

3 on leave for Acad. Year.

- Weimont, Robert A.** (1973) Counselor, York County Community College Services; Colby College, B.A., 1971; University of Maine at Orono, M.Ed., 1973
- White, Stuart E.** (1975) Lecturer, School of Law; U. S. Naval Academy, B.S., 1945; Harvard University, J.D., 1950
- Whiteside, Marilyn** (1974) Assistant Professor of Education; North Texas State, B.A., 1954; New York University, M.A., 1967; University of Oregon, Ph.D., 1973
- Whiting, William Lawrence** (1947) Associate Professor of Communication and Coordinator of Administrative Affairs; University of Maine, B.A., 1937; Bates College, M.Ed., 1948; Northwestern University, M.A., 1954
- Whitmore, Allen Richard** (1969) Associate Professor of History; University of Maine, B.A., 1962; Northwestern University, M.A., 1964; Ph.D., 1970
- Whitney, Sarah Florence** (1973) Associate Professor of Nursing; Catherine Spalding College, B.S.N., 1960; Catholic University of America, M.S.N., C.N.M., 1964
- Whitten, James M.** (1951) Associate Professor of Philosophy of Education; Colby College, A.B., 1944; University of Maine, A.M., 1955
- Whitten, Maurice M.** (1955) Professor of Chemistry; Colby College, A.B., 1945; Columbia University, M.A., 1949; Ohio State University, Ph.D., 1971
- Wigglesworth, Edward** (1972) Laboratory Demonstrator; Colby College, M.S.T., 1968
- Wilbur, Carl A.** (1973) Counselor, York County Community College Services; University of Maine at Orono, B.S., 1948; State University of New York at Buffalo, M.A., 1972
- Willard, Nancy Lee** (1969) Assistant Professor of Physical Education; Russell Sage College, B.S., 1958; State University College, Plattsburg, N.Y., M.S., 1967
- Williams, Michael** (1976) Assistant Professor of Sociology; University of California at Santa Barbara, B.A., 1969; M.A., 1971; Ph.D., 1976
- Williamson, Marian** (1974) Director/Teacher - University Day Care Center; Colorado State University, B.S., 1968
- Wilson, Neville** (1968) Assistant Professor of English; Tufts University, B.A., 1965
- Wise, William B.** (1966) Assistant to the President; University of Maine, B.S., 1961; University of Maine at Orono, M.Ed., 1971
- Witham, A. Dirk** (1976) Instructor in Education and Director of Upward Bound; Hawthorne College, B.A., 1967; University of Oregon, M.S., 1973.
- 2 Witherill, Robert D.** (1966) Associate Professor of Economics; Colby College, A.B., 1947; University of Maine, M.A., 1953; M.Ed., 1962
- Wood, Joanna** (1976) Visiting Lecturer in Social Welfare; Newton College, B.A., 1965; Simmons School of Social Work, M.S.W., 1969
- 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
- Wroth, L. Kinvin** (1964) Professor of Law, School of Law; Yale University, A.B., 1954; Harvard University, LL.B., 1960
- Yalouris, Mary A.** (1974) Director of Personnel; University of Maine, B.A., 1967
- 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, Jocelyn** (1975) Assistant Professor of Sociology; Oberlin College, A.B., 1971; University of Pennsylvania, M.A., 1973
- Young, Rosalie M.** (1968) Information Specialist; University of Maine in Portland, B.A., 1968
- Zaner, John A.** (1974) Assistant Professor of Wood Technology; Millersville State College, B.S., 1969; M.Ed., 1972
- Zarr, Melvyn** (1973) Associate Professor of Law, School of Law; Clark University, A.B., 1958; Harvard University, LL.B., 1963
- 1 on leave, Fall semester, 1976*  
*2 on leave, Spring semester, 1977*  
*3 on leave, Academic year, 1976-1977*

*the Portland campus*  
**UNIVERSITY OF MAINE at Portland-Gorham**



# the Gorham campus

## UNIVERSITY OF MAINE at Portland-Gorham

### BUILDINGS

1. Bailey Hall - (Science)
2. Bailey Hall - (Library)
3. Bailey Hall - (Classroom)
4. Warren G. Hill Gym
5. Anderson Hall
6. Woodward Hall
7. Russell Hall
8. Corthell Hall
9. President's Residence
10. Art Gallery
11. Upton Hall
12. Hastings Hall
13. Robie Hall
14. Andrews Hall
15. Maintenance Building
16. Art Building (Academy)
17. Central Tennis Courts
18. College Ave. Tennis Courts
19. Water Tower
20. Athletic Field
21. Industrial Ed. Center

22. McLellan House
23. Dining Center
24. Residence Towers
25. Heating & Sewage Plants
26. Offices, 19 College Ave.
27. Physical Plant Building

### STUDENT PARKING LOTS

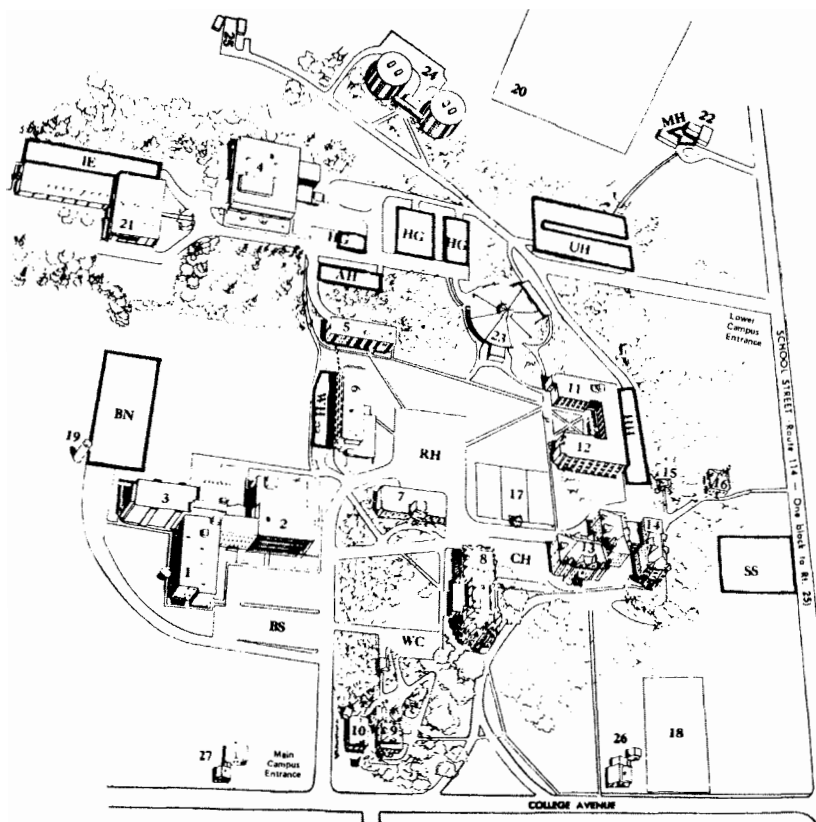
Student parking lots are outlined by heavy borders on this map. These are:

- IE - Industrial Ed. Center
- BN - Bailey Hall North
- HG - Hill Gym
- AH - Anderson Hall
- WH - Woodward Hall
- UH - Upton Hall
- HH - Hastings Hall
- MH - McLellan House
- SS - School Street

After 4:00 p.m. students may park in the southern half of the BS faculty parking lot or the RH faculty-staff parking lot. These lots must be restricted at other hours.

Lightly outlined parking areas coded RH and CH are for faculty and staff only; the BS area is for faculty only. Small areas restricted to faculty-staff parking are also provided close to the Hill Gymnasium, the Industrial Education Building, and the Art Building.

Ten-minute parking for visitors is provided west of Corthell (WC), west of the Hill Gymnasium, near the entrance of the Bailey Library, and by the Tennis courts.





### **Alumni House – One of the Two Alumni Centers at UMPG**

The Alumni Association of the University of Maine at Portland-Gorham, under the leadership of Anne M. Theriault, Executive Director, enrolls more than 13,000 members, representing alumni of Gorham Normal School, Gorham State Teachers College, Portland Junior College, Portland University, the University of Maine in Portland, Gorham State College, Gorham State College of the University of Maine, and the University of Maine at Portland-Gorham.

Alumni offices are maintained at 19 College Avenue on the Gorham campus and at Alumni House on the Portland campus. The Alumni Association of UMPG works from these two centers to expand the tradition of service both to the alumni and to the current UMPG 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 both Alumni Offices and to get acquainted with the personnel and the programs of The Alumni Association of the University of Maine at Portland-Gorham before graduation. All students, as well as former students, are cordially welcomed at both locations.

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