

1973

## University of Maine at Portland-Gorham Catalog 1973-1974

University of Maine at Portland - Gorham

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# UNIVERSITY OF MAINE AT PORTLAND-GORHAM CATALOG 1973-74

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## GENERAL REQUIREMENTS FOR ALL BACCALAUREATE DEGREE CANDIDATES

The General Education Requirement of UMPG 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 below, with course selections restricted to the prefix-code designations listed. The remaining six hours shall be selected as described below under "Area 5: General."

### AREA 1: HUMANITIES

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

### AREA 2: FINE AND APPLIED ARTS

<b>ARTH</b> (Art History and Appreciation)	<b>MUS</b> (Music)
<b>ARTS</b> (Art Studio Courses)	<b>TC</b> (Theatre/Communications)
<b>DNCE</b> (Dance)	

### AREA 3: SCIENCE AND MATHEMATICS

<b>ASTR</b> (Astronomy)	<b>GEOL</b> (Geology)	<b>OCN</b> (Oceanography)
<b>BIO</b> (Biology)	<b>GSCI</b> (General Science)	<b>PHYS</b> (Physics)
<b>CHEM</b> (Chemistry)	<b>MET</b> (Meteorology)	<b>PSCI</b> (Physical Science)
<b>ESCI</b> (Earth Science)	<b>MS</b> (Mathematics)	

### AREA 4: SOCIAL SCIENCES

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

### AREA 5: GENERAL

Six hours to be selected from one, or a combination of the four academic groupings, SCOGIS courses, CLA designations, or when school or college requirements permit, PE courses. The College of Liberal Arts requires no Physical Education courses but accepts optional PE credits in Area 5. The School of Business and Economics requires no PE courses but accepts optional PE credits in Area 5 for 4-year Business Administration and Accounting majors only. The School of Nursing requires 2 credits of Physical Education and accepts in Area 5 not more than 2 added optional PE credits. The School of Education requires a year of Physical Education but accepts no PE credits as applicable to Area 5. (Certain students in the Schools of Nursing or Education may be exempted from all PE requirements under criteria described in the sections of this catalog having to do with the School of Education or School of Nursing.)

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 Requirements under the provisions stated above.

### UMPG SYSTEM OF COURSE CODING

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

The information contained in this catalog covers rules, regulations, curricula, and programs as established by June 30, 1973, for the 1973-74 academic year. The University reserves the right to make changes at any time.

The University of Maine fully supports and complies with Title VI of the Civil Rights Act of 1964 and does not discriminate in any way in any of its policies on the basis of sex, race, color, or national origin.

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



## **Catalog for 1973-1974**

Information as established by June 30, 1973

# Academic Calendar for 1973-74

## University of Maine at Portland-Gorham

### FALL SEMESTER 1973

September 5	First Day of Classes
November 22-23	Thanksgiving Recess
December 14	Last Day of Classes
December 17-22	Final Examinations for the Semester
January 11	Commencement (Tentative)

### SPRING SEMESTER 1974

January 14	First Day of Classes
February 18	Holiday — Washington's Birthday
March 25-30	Spring Recess
May 3	Last Day of Classes
May 6-11	Final Examinations for the Semester
May 12	Commencement (Tentative)

### THE FRONT COVER

The original watercolor reproduced on the outside cover spread was graciously loaned to the University of Maine at Portland-Gorham by the artist, Laurence Sisson.

# Table of Contents

A much more detailed alphabetical index is listed on pages 236-240 immediately after the campus maps on pages 234-235.

General Education Requirements .....	Inside Front Cover	Athletics .....	33
Academic Calendar .....	2	Academic Policies .....	35
Administrative Structure of UMPG ....	5	General Requirements .....	35
Description of UMPG .....	9	Attendance Policy .....	35
Admission to Undergraduate Programs	10	Examination Policy .....	35
Undergraduate Programs Offered ....	10	Absence from a Final Examination .....	35
New England Regional Program ....	11	Grade Reports .....	36
Secondary School Preparation .....	11	The Grading System .....	36
Entrance Examinations Required ....	12	Grade-Point Averages .....	37
Application Procedure .....	13	Minimum Grade Policy .....	37
Admission Procedures .....	13	D Grades and Repeating Courses ..	37
Department Requirements for Admission .....	14	Pass-Fail Option .....	38
Foreign Student Admissions .....	14	Double Majors .....	38
Transfer Student Admissions .....	14	Independent Study .....	38
Credit by Examination .....	15	Independent Study Term .....	38
Advanced Placement .....	15	Add-Drop Procedure .....	38
College Level Examinations .....	15	Change of Major .....	39
Financial Assistance Application ....	16	Change of College or School .....	39
Readmission .....	16	Withdrawal from the University ....	39
Special Students .....	16	Suspension .....	39
Financial Information .....	17	Probation .....	39
Student Expenses .....	17	Class Membership .....	40
Deposits .....	18	Graduation Requirements .....	40
Payment of Bills .....	18	Graduation with Distinction .....	40
Uniform Refund Policy .....	18	Departmental Honors Program .....	40
Rules Governing Residence .....	20	College of Liberal Arts .....	41
Financial Assistance .....	22	General Information .....	41
Grants and Scholarships .....	23	Art Department .....	47
Loans .....	23	Biology Department .....	54
Work-Study .....	23	Dance .....	59
Student Life, Activities, Services .....	25	Economics B.A. Degree Program ....	59
Student Life .....	25	English Department .....	60
Student Activities .....	25	Introductory Courses .....	61
Student Services .....	27	Writing Courses .....	61
Campus Regulations .....	29	Criticism Courses .....	61
Cultural Activities .....	30	Linguistics and Related Courses	62
Alumni Center .....	32	Non-Required Major Credit Courses .....	63
Libraries, Recordings, and Bookstores .....	32	English Literature .....	64

American Literature .....	66	Courses in the Associate Degree Program .....	158
Modern Literature .....	67	Courses in the Four-Year Program in Business Administration .....	161
Experimental Courses .....	68	Courses in the Four-Year Program in Economics .....	164
Foreign Languages and Classics Department .....	69	Courses in the Master of Business Administration .....	166
Courses in English Translation ..	70	School of Education .....	168
Greek and Latin Courses .....	71	General Information .....	168
French Courses .....	72	Kindergarten-Primary Majors .....	170
Foreign Language Education .....	74	Elementary Majors .....	170
German Courses .....	74	Secondary Majors .....	173
Spanish Courses .....	75	Courses in Education .....	174
Geography-Anthropology Department .....	76	Industrial Arts Department .....	179
History Department .....	81	Vocational Technical Education ....	186
Mathematics Department .....	90	School of General and Interdisciplinary Studies .....	190
Music Department .....	97	School of Nursing .....	192
Philosophy Department .....	107	Division of Physical Education and Athletics .....	196
Physical Sciences and Engineering Department .....	110	Courses in Physical Education Activities .....	196
Astronomy .....	114	Professional Courses in Physical Education .....	197
Chemistry .....	115	Certificate in Athletic Coaching .....	200
Geology .....	117	Graduate Studies .....	201
Earth Science .....	117	School of Law .....	206
Engineering .....	118	Center for Research and Advanced Study .....	209
Physical Science .....	122	Continuing Education Division .....	209
Physics .....	122	Local Offices Representing Statewide University Functions .....	214
Political Science Department .....	124	Landmark Dates in the Development of UMPG .....	216
Criminal Justice Division .....	129	Personnel .....	220
Psychology Department .....	132	Map of the Portland Campus .....	234
Social Welfare Department .....	136	Map of the Gorham Campus .....	235
Sociology Department .....	138	Index .....	236
Theatre/Communications Department .....	142		
Course Descriptions—Communications .....	145		
Course Descriptions—Theatre .....	147		
School of Business & Economics .....	150		
General Information .....	150		

# THE UNIVERSITY OF MAINE

## AT PORTLAND-GORHAM

### ADMINISTRATION FOR 1973-1974

(Listing as established on or before July 31, 1973)

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ASSISTANT DIRECTOR OF CONTINUING EDUCATION AND SUMMER SESSION .....	To be announced
DIRECTOR OF COUNSELING, CONTINUING EDUCATION AND SUMMER SESSION .....	John N. Farrar
SHORT COURSE COORDINATOR .....	Raymond P. Kane
ADMINISTRATIVE ASSISTANT .....	Ellen M. Martel

## Academic Administrative Structure of Undergraduate College and Schools

### COLLEGE OF LIBERAL ARTS

DEAN .....	Konnilyn G. Feig
ASSOCIATE DEAN .....	Constance M. Carroll
ASSISTANT DEAN .....	Waldeck E. Mainville, Jr.
CHAIRMAN, ART DEPARTMENT .....	Michael G. Moore
CHAIRMAN, BIOLOGY DEPARTMENT .....	Haig H. Najarian
CHAIRMAN, ENGLISH DEPARTMENT .....	Phillip R. Rutherford
CHAIRMAN, FOREIGN LANGUAGES AND CLASSICS ....	Frederick B. Rolfe
CHAIRMAN, GEOGRAPHY AND ANTHROPOLOGY .....	Franklin D. Hodges
CHAIRMAN, HISTORY DEPARTMENT .....	Eugene P. A. Schleh
CHAIRMAN, MATHEMATICS DEPARTMENT .....	Lincoln T. Fish
CHAIRMAN, MUSIC DEPARTMENT .....	Harold F. Brown
CHAIRMAN, PHILOSOPHY DEPARTMENT .....	William J. Gavin
CHAIRMAN, PHYSICAL SCIENCES AND ENGINEERING .....	James W. Pendleton
CHAIRMAN, POLITICAL SCIENCE DEPARTMENT .....	John A. Peirce
CHAIRMAN, PSYCHOLOGY DEPARTMENT .....	Estelita L. Saldanha
CHAIRMAN, SOCIAL WELFARE DEPARTMENT .....	John M. Romanyshyn
CHAIRMAN, SOCIOLOGY DEPARTMENT .....	Donald F. Anspach
CHAIRMAN, THEATRE/COMMUNICATIONS DEPARTMENT .....	Melvin E. Pic'l
DIRECTOR, ART GALLERY .....	Juris K. Ubans
DIRECTOR, CRIMINAL JUSTICE PROGRAM .....	Donald L. Dahlstrom
DIRECTOR, MUSEUM OF MAN .....	Robert J. French
DIRECTOR, SOUTHWORTH PLANETARIUM .....	George H. Ayers

### SCHOOL OF BUSINESS AND ECONOMICS

DEAN .....	John W. Bay
CHAIRMAN, BACCALAUREATE PROGRAM IN BUSINESS ADMINISTRATION .....	Robert W. Findlay
CHAIRMAN, ASSOCIATE PROGRAM IN BUSINESS ADMINISTRATION .....	Richard L. McKeil
CHAIRMAN, ECONOMICS DEPARTMENT .....	Leon J. Bien

### SCHOOL OF EDUCATION

DEAN .....	Harlan A. Philipp
CHAIRMAN, ELEMENTARY EDUCATION DEPARTMENT .....	Melissa H. Costello
CHAIRMAN, FOUNDATIONS DEPARTMENT .....	James M. Whitten
CHAIRMAN, SECONDARY EDUCATION DEPARTMENT .....	Merrill E. Cobb
CHAIRMAN, INDUSTRIAL ARTS DEPARTMENT .....	John Mitchell
DIRECTOR, VOCATIONAL-TECHNICAL EDUCATION PROGRAM .....	Arthur O. Berry

## **DIVISION OF PHYSICAL EDUCATION AND INTERCOLLEGIATE ATHLETICS**

DIRECTOR ..... Richard A. Costello  
ASSOCIATE DIRECTOR ..... James V. Sullivan

## **SCHOOL OF GENERAL AND INTERDISCIPLINARY STUDIES**

DIRECTOR ..... To be announced

## **SCHOOL OF NURSING**

DEAN ..... Mary Ann Eells  
ASSISTANT DEAN ..... Anna B. Ivanisin  
CHAIRMAN, COMMUNITY HEALTH NURSING ..... Marjorie M. Roscoe  
CHAIRMAN, PSYCHIATRIC NURSING ..... Jean Cotton  
CHAIRMAN, MEDICAL-SURGICAL NURSING ..... Jeanne G. Talbot  
CHAIRMAN, ADVANCED MEDICAL-SURGICAL  
NURSING ..... Judith T. Stone  
CHAIRMAN, MATERNAL AND CHILD HEALTH  
NURSING ..... Frances M. Linehan  
DIRECTOR, BUREAU OF CONTINUING EDUCATION FOR  
NURSING ..... Mary Ann Rost

## **Academic Administrative Structure of Graduate and Graduate Professional Schools**

### **GRADUATE SCHOOL**

DEAN ..... Robert M. York  
ASSISTANT DEAN ..... Elizabeth F. Kerr

### **SCHOOL OF LAW**

DEAN ..... Bert S. Prunty, Jr.  
ASSISTANT DEAN ..... William F. Julavits  
REGISTRAR ..... Doris M. Peters  
DIRECTOR, CLINICAL PRACTICE PROGRAM ..... Judy R. Potter  
LIBRARIAN, SCHOOL OF LAW ..... Donald L. Garbrecht

# 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 courses leading to bachelors' and masters' degrees in a variety of subject areas. It is a consolidation of the former University of Maine in Portland and the Gorham State College of the University of Maine and comprises two campuses, both on State Route 25 which crosses the Maine Turnpike one block south of Turnpike Exit 8. The Portland Campus is three miles east of Exit 8, and the Gorham Campus is seven miles to the west of that exit.

Bus 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. Parking lots on both campuses are available for students commuting in their own automobiles. Dormitory facilities are provided only at the Gorham Campus, but dormitory students who pay for board and room at the Gorham Campus may obtain lunch without extra charge at the Portland Campus on days when their class schedules require them to be at the Portland Campus at lunch time.

More than 3,800 full-time undergraduate students are enrolled at the University of Maine at Portland-Gorham. In addition to these full-time undergraduates, a number of full-time graduate students are enrolled at the University of Maine School of Law, a unit of the University of Maine at Portland-Gorham.

In addition to the full-time students, approximately 6,000 part-time students are enrolled in late-afternoon, evening, and Saturday courses offered by the Continuing Education Division of the University of Maine at Portland-Gorham. About 500 CED courses are offered during the academic year, making it possible for part-time students to earn undergraduate degrees in business administration, education, and liberal arts. Graduate programs are available in business, engineering, library service, and education. Most of the course offerings are given at either the Portland or Gorham campus, but some in-service training courses are offered in various towns throughout Cumberland and York counties.

The Continuing Education Division is also responsible for the Summer Session, meeting the needs of an additional 3,000 students taking 280 or more day and evening summer courses. Many summer session courses are offered in three-week units of intensive study, some starting in June, some in July, and some in August. Other daytime summer courses are offered in six-week sessions, and a few are scheduled in five-week or two-week sessions. Summer evening courses are normally offered in an eight-week session, with classes meeting two evenings a week.



# Admission -- Undergraduate Studies

The approval of candidates seeking admission to the University of Maine at Portland-Gorham 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. The following is a list of Schools and Colleges, with academic majors to which students may apply.

## COLLEGE OF LIBERAL ARTS

The College of Liberal Arts currently offers four-year programs leading to the degree of Bachelor of Arts, with the following majors:

Art	French	Psychology
Biology, including Pre-Med.,	History	Self-Designed major**
Pre-Dental and Pre-Vet.	Liberal Studies*	Sociology
Criminal Justice	Mathematics	Social Welfare
(B.S. degree)	Music	Theatre/Communications
Economics	Philosophy	Undecided
English	Political Science	

\*Liberal Studies: Declaration of this major is normally done at the end of the Sophomore year.

\*\*Self-Designed major: Approval of this program must be made by the Committee on Self-Designed majors.

## SCHOOL OF BUSINESS AND ECONOMICS

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.

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.

## SCHOOL OF EDUCATION

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

Secondary Education majors include:

Biology	French	Social Sciences
Earth Science	History	Theatre/Communications
Economics	Mathematics	Undecided
English	Sciences Area	

Other Programs of the School of Education include:

Elementary Education	Industrial Arts Education
Kindergarten-Primary Ed.	Vocational-Technical Ed.
Art Education	Industrial Arts Technology
Music Education	(non-teaching program)

## 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 \$75.00) 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 of Maine at Portland-Gorham offers undergraduate programs of study to qualified candidates from the New England states at in-state tuition rates. The following fields of study are currently available in the New England Regional Student Program.

PROGRAM	OPEN TO STUDENTS FROM:
<b>Two-Year Program</b>	
Two-Year Business Administration (Associate Degree Program)	Conn., Mass., N.H., R.I., Vt.
<b>Four-Year Program</b>	
Art Education	Conn., R.I.
Criminal Justice	Conn., Mass., N.H., R.I., Vt.
Vocational Technology	Conn., N.H., R.I.
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 LIBERAL ARTS

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

## SCHOOL OF BUSINESS AND ECONOMICS

<b>Four-Year Baccalaureate Program</b>	
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.

## SCHOOL OF EDUCATION

English	4 Units
*Mathematics	3 Units (Recommended 2 Algebra, 1 Geometry)
**Sciences	2 Lab Units
History/Social Science	2 Units
***Foreign Language	Optional
*Mathematics majors in Secondary Education 4 Units	
**Biology and Science Area majors in Secondary Education 3 Lab Units	
***Foreign Language majors in Secondary Education 3 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 ENTRANCE EXAMINATION BOARD AND AMERICAN COLLEGE TESTING

1. 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.

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

3. Candidates submitting Scholastic Aptitude Test & Achievement Test results are required to submit **three 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. A third achievement test, covering some other subject area of the student's choice, must also be submitted.

4. Veterans, 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.

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

## REPORTING TEST RESULTS

Candidates are required to submit all test results **no later than February of the senior year**. Scores must be submitted to the University Admissions Office from the Educational Testing Service, Box 592, Princeton, New Jersey 08540, Box 1025, Berkeley, California 94701, or The American College Testing Program, P.O. Box 451, Iowa City, Iowa 52240.

### Dates for the Scholastic Aptitude Test and Achievement Tests 1973-74

November 3, 1973 (SAT only)	February 2, 1974 (SAT only)
December 1, 1973 (Both SAT & Achievement)	April 6, 1974 (SAT only)
January 12, 1974 (Achievement only)	May 4, 1974 (Achievement only)
	June 22, 1974 (SAT only)

### Dates for the American College Testing Program 1973-74

October 20, 1973	February 23, 1974
December 8, 1973	April 27, 1974
	June 15, 1974

## APPLICATION PROCEDURE

1. Obtain a copy of the University brochure and the necessary application forms from the Director 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 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. **Upon receipt** of an application the Admissions Office will return to the applicant the necessary forms to be completed by the high school.

## 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 \$50.00 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 an applicant to the University. The Admissions Office reserves the right to refuse admission to any candidate who is not fully qualified to meet these University standards of personal fitness.
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 of Maine at Portland-Gorham are required to submit to the Art Department at the Gorham campus 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. Students will be notified of the appropriate procedures to follow and the date by which the portfolio must be submitted.

**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.

**INDUSTRIAL ARTS** Applicants for the Industrial Arts program are required to take special aptitude tests at the University; they should have had a minimum of one unit in either industrial arts or drafting (graphics) in high school. Students will be notified by the Industrial Arts Department of the appropriate procedures to follow.

**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.

## FOREIGN STUDENTS

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 UMPG 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. Further details are given in the "Foreign Student Handbook" available from the International Student Adviser.

## 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 advanced standing credit. 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.

## 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
		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.

Credit for CLEP subject examinations that have been reviewed and approved by the respective UMPG departments may also be given for specific courses, as determined by the departments during the academic year 1973-74.

## **2. Subject Examination (CLEP)**

**School of Business and Economics** — The Department of Business Administration will accept satisfactory completion of CLEP subject examinations and allow credit toward the business core 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 Department Chairman of the specific course to be challenged.

## **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.

Married students applying for financial assistance must fill out The Student's Confidential 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**

Degree 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, Room 128, Payson Smith Hall, 96 Falmouth Street, Portland, Maine. Applications must be received by December 1 for spring readmission and July 1 for September readmission.

## **SPECIAL STUDENTS (Non-Degree)**

The Admissions Office does not admit special students. At the present time the undergraduate Admissions Office works with full-time degree candidates attending days and degree candidates attending through the Continuing Education Division. Special students are referred to the appropriate dean's office for assistance in registering as non-degree students.

# Financial Information

## STUDENT EXPENSES: Academic Year of 1973-74

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

### ANNUAL EXPENSES: FULL-TIME UNDERGRADUATE STUDENTS

*Undergraduate Tuition for a Resident of Maine* ..... 450.00  
(Tuition for Non-Residents, as defined below, is \$1400)

*Student Activity Fee* (required of all full-time undergraduates taking twelve hours or more) ..... 16.00

*Books and Supplies* — Textbooks, personal laboratory equipment, etc., are not furnished by the University. Annual costs vary from \$100 to ..... 200.00

*Personal Expenses* — Over and above food and lodging, recent estimates indicate an annual average of at least ..... 350.00

*Voluntary Health Insurance* — Optional but strongly recommended. Estimated cost 30.00

### ADDED EXPENSES FOR DORMITORY RESIDENTS

*Board and Room for Dormitory Residents* (per academic year) ..... 1,120.00

Note: In the event that special dormitory guards are established, the interested students will be charged a fee adequate to cover the cost of these guards.

**OPTIONAL MEALS FOR OFF-CAMPUS RESIDENTS:** \$560 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 \$25 per semester hour for courses carrying degree credit. Continuing Education students are charged \$25 per semester hour for courses carrying degree credit, up to a maximum of \$225 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 \$25 per semester-hour up to a maximum of \$225 per semester, or tuition for non-residents of Maine of \$70 per semester-hour up to a maximum of \$700 per semester.

*School of Law* — Tuition for residents of Maine and non-residents covered by the New England Pact is \$550 per year; tuition for other non-residents is \$1650 per year. The \$10 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 on a non-credit basis 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 dormitory room is requested, an additional \$25 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.)

The deposits are forfeited in case an applicant withdraws after June 1. If a freshman, transfer, or readmission applicant notifies the Director of Admissions of withdrawal prior to June 1, the deposits will be refunded.

Upperclassmen desiring to live in a dormitory must pay a room deposit of \$25 during the spring in order to assure that rooms will be reserved for them in the fall. This deposit will be applied to the fall semester bill. If it is found that dormitory accommodations are not desired, the deposit will be refunded if the Housing Office is notified by June 1. If notice is not given by that date, the deposit will be forfeited.

## PAYMENT OF BILLS:

All University bills, including those for room and board in University buildings, are due and payable on or before August 20 for the Fall Semester and on or before January 7, 1974, for the Spring Semester. Bills may be paid at the business offices at either campus by mail or in person. Checks should be made payable to the University of Maine.

## 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 nine 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 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

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

	<i>Percentage Refund</i>
<b>(a) Six-week Courses</b>	
1st week	75%
2nd week	50%
3rd week	25%
After 3rd week	-0-
<b>(b) Three-week Courses</b>	
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 the 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 possesses facts or information indicating a change of status from resident to non-resident, the student shall be informed in writing of the change of status and will be given an opportunity to present facts in opposition to the change. The student may appeal the Business Manager's decision as set forth in the preceding paragraph.

No applications will be considered for changes after September 1 for the fall semester and January 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 UMPG Office of Student Financial Aid, located on the Gorham campus on the second floor of Corthell Hall, employs various federal, state, and private aid programs to assist students in financing their education. These programs assume that the primary responsibility of meeting the financial obligations of a college education rests with the parents and the student. It is important, therefore, that parents and students work out a financial plan for the period of time during which their sons or daughters will be attending UMPG. 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.

### **WHO MAY APPLY**

Any undergraduate, graduate, or professional student enrolled in a program leading to a degree or any candidate applying for admission to the University of Maine at Portland-Gorham may apply for financial aid.

Prospective first year students should contact the Financial Aid Officer for up-to-date information concerning the Basic Educational Opportunity Grant Program.

### **HOW TO APPLY**

Prospective First-Year Students should obtain a College Scholarship Service Parents' Confidential Statement from their high school guidance counselor or from any student aid office of the University of Maine. This application should be completed and forwarded to the College Scholarship Service as directed on the application. No other application is required.

Students who have already enrolled and have completed a semester or more of academic work at the University of Maine at Portland-Gorham should obtain applications through the Student Financial Aid Office.

Students who consider themselves independent of their parents should indicate this fact when requesting an application.

### **WHEN TO APPLY**

Just before the Christmas vacation the University Financial Aid Office usually conducts a series of student aid information meetings at which students may obtain applications. Students applying for admission to the University of Maine at Portland-Gorham must submit their applications for the coming academic year on or before January 1. Recipients will be notified at the time of billing, July 15. All students should remember that in order to be considered for aid, applications must be completed each year.

### **CONDITIONS FOR AWARDS**

Students may be granted financial assistance if a definite need is indicated by the Parents' Confidential Statement (Student Financial Statement in the case of independent students) and an evaluation made by the Financial Aid Officer.

## **SOURCES OF FINANCIAL ASSISTANCE**

### **Grants and Scholarships**

The University of Maine at Portland-Gorham participates in the Supplementary Educational Opportunity Grants Program. Funds are provided by the federal government for grants to students who have exceptional financial need.

Prospective first year students should contact the Financial Aid Officer for up-to-date information concerning the Basic Educational Opportunity Grant Program.

University Scholarships are granted annually to approximately 300 students who are in good academic standing, show strong academic promise, and have a definite financial need.

The Simmons Foundation, Inc., Grant Program consists of funds awarded annually to approximately 15 students who have demonstrated financial need.

### **Loans**

The University of Maine at Portland-Gorham participates in the National Direct Student Loan Program. Funds are provided by the federal government. Students may borrow funds from the government under this program with interest and payments deferred until after completion of their degree work. Loans average approximately \$500 for an academic year. Limited funds require that loans be made on the basis of need.

The University of Maine at Portland-Gorham is a participating member in the United Student Aid Fund, Inc., Loan Program. Under this program, students may borrow up to \$2,500 annually for a total not to exceed \$7,500 for undergraduates, and \$10,000 for graduate students. Applications for these loans are to be secured directly from the participating banks and then submitted to the University Aid Office.

There is a revolving short-term emergency loan fund on both the Portland and Gorham campuses. These funds should be applied for through the Educational Services Office on either campus. Normally, short-term loans are not made in excess of \$50.

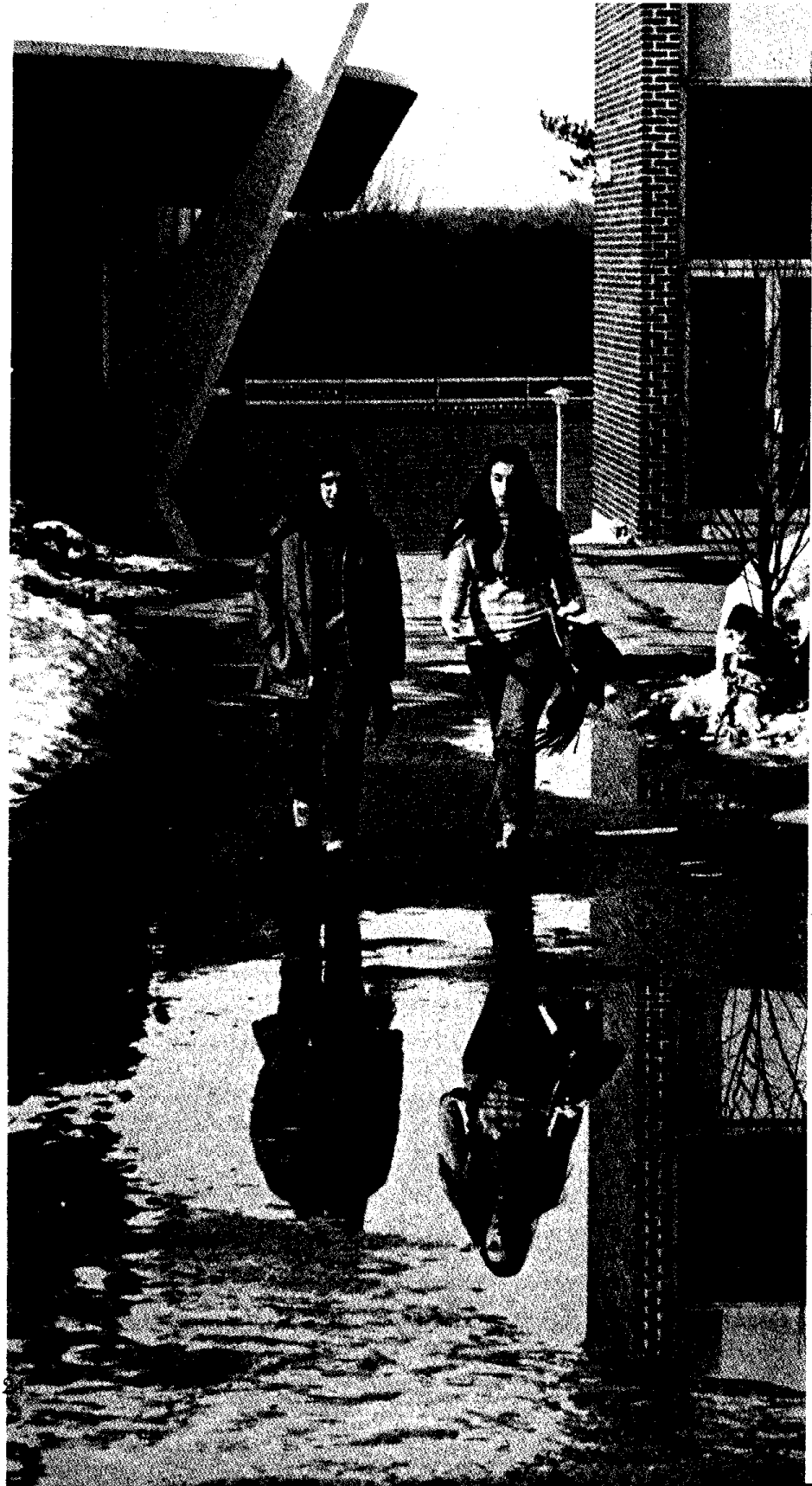
### **Work Programs**

The University of Maine at Portland-Gorham participates in the College Work-Study Program. Funds are provided by the federal government and the University to employ students both on and off campus. Student earnings through this program are to be used to help defray educational costs. Special consideration in hiring is given to students with great financial need.

The University operates another work program referred to as Student Employment. This program is funded by the University and operates in the same way as the College Work-Study Program described above.

Further information concerning special aid programs for Nursing Students and Law Enforcement Students can be obtained at the Financial Aid Office.





# STUDENT LIFE AND ACTIVITIES

## STUDENT LIFE

The University of Maine at Portland-Gorham supplements its academic curriculum by offering students a wide variety of services and activities ancillary to normal classroom educational experiences. Philosophically, the Educational Services Division seeks to assist students toward educational fulfillment through (1) services to aid with personal, social, financial, and vocational needs and (2) co-curricular experiences in the form of programs and assistance to student organizations to help maximize individual student development.

The unique physical arrangement of the University of Maine at Portland-Gorham 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.

## STUDENT ACTIVITIES

Extra-curricular activities form an important part of the educational experience of students on every university campus. The University of Maine at Portland-Gorham encourages students to take advantage of the many opportunities to broaden intellectual horizons and to work together with other students either on university committees or through participation in campus clubs or other organizations. Not only is there value in social learning derived from participation, but many of the recognized functions of student organizations relate to the curriculum and classroom experiences of the students. Typical of the many extra-curricular activities and organizations available to students are the following:

### Student Organizations

There are over sixty student organizations on the Portland-Gorham campuses which reflect a wide spectrum of honoraries, professional associations, university governance committees, and social or religious organizations. Such organizations include:

**Academic & Professional Organizations** — Social Welfare Majors Association, Business Club, Council of Nursing Students, Drama Club, Industrial Arts Professional Organization, Le Cercle Francais, Psychology Club, Student Art Gallery Association, Student Education Association, Spanish Club.

**Musical Organizations** — A Cappella Choir, Concert Band, Gorham Chorale, Chamber Singers, Chamber Orchestra, Portland Chorus, Music Educators National Conference.

**Religious Organizations** — Inter-varsity Christian Fellowship, Religious Affairs Club, Bahai Club, Christian Science College Organization.

**Social and Service Organizations** — Environmental Improvement Club, Modern Dance Club, Portland Union Board.

**Special Interest Organizations** — Karate Club, Orientation Committee, Young Democrats, Young Republicans, Varsity Club, Outing Club, Student International Meditation Society.

## **Student Publications**

The **Literary Journal** is a Journal of creative art and literature which offers the entire campus community a forum for creative expression and presents the reader with a panorama of campus artistic and writing endeavors. The **University Free Press**, the weekly student newspaper, is staffed and published by students interested in various aspects of journalism. The **Reflection**, the UMPG yearbook, is published annually by students and represents a pictorial record of academic and social life at UMPG.

## **Radio Station WMPG-FM**

The radio voice of UMPG broadcasts at 91.1 on the FM dial and is located in the Student Center on the Gorham campus. WMPG will serve the metropolitan area of Portland and Gorham with noncommercial programs of high quality. Students are encouraged to become part of this communications medium on campus.

## **Honor Societies**

**Owls and Eagles** is a sophomore service honorary which assists the campus community in many facets. **Top-of-the-Tree** is an honorary drama organization. **Epsilon Pi Tau** is an international honor fraternity for industrial arts and industrial-technical education. **Kappa Delta Epsilon** is an honor sorority for education majors.

**Fraternities and Sororities** — The Greek system offers an additional aspect of development in social living and communication through objectives of group unity and close friendship. The Greek letter organizations on the Portland-Gorham campuses are **Delta Chi**, **Phi Mu Delta**, **Tau Epsilon Phi**, and **Tau Kappa Epsilon** fraternities, and **Alpha Xi Delta**, **Delta Zeta**, and **Phi Mu** sororities.

The **Inter-Fraternity** and **Inter-Sorority Councils**, governing units of fraternities and sororities respectively, are intended to insure the continuity of high ideals expressed by all fraternities and sororities through self-government.

## **Student Government**

Students have the opportunity to help govern the campus community in close cooperation with the faculty and administration through the Student Affairs Committee. There are always openings on one of the major committees.

**Students Activities Board** — Coordinates concerts, films, special events, travel, major weekends, lectures.

**Student Communications Board** — Coordinates campus communications.

**Appropriations Committee** — Receives requests for organizational funding.

**Organization Committee** — Reviews constitutions of old and new student organizations for recognition.

**Ad-Hoc Committees** — Many Ad-Hoc committees are organized to meet specific needs.

## **Volunteer Services**

Interesting volunteer service projects to assist various aspects of the University, as well as local communities, are coordinated by the Educational Services Division. These projects offer students an opportunity to become involved in areas of need in the Portland-Gorham communities. Typical projects include the recording of "talking books" for blind students, work with children at the Cerebral Palsy Center, and activities with children at the Pineland State Hospital.

## **Resident Student Government**

The governing and coordinating group for the resident halls is officially known as the Resident Student Government, commonly referred to as the RSG. Activities of individual hall councils are often aided and advised by RSG.

# **STUDENT SERVICES**

## **Student Health Services**

To provide student health services, the Portland campus maintains a Health Center open 8:00 A.M. to 4:00 P.M., Monday through Friday, with a registered nurse in attendance who is available for first aid, consultation, and temporary emergency care. A physician is available from 11:00 A.M. to 12:30 P.M. Monday through Friday, for consultation.

On the Gorham campus, an Infirmary is maintained and open 24 hours a day, 7 days a week, with four full-time registered nurses who are also available for consultation, emergency, and in-patient care. A physician is in attendance Monday through Friday from 1:00 P.M. to 2:30 P.M.

Health and Accident Insurance is available at a nominal fee.

## **Placement Operation**

The Career Planning and Placement office offers continuous assistance to undergraduates, graduates, and alumni. The office offers services in the areas of business and industry, nursing, and education. The placement program:

- encourages early assessment by the individual of personal capabilities as they relate to vocational objectives;
- provides information on the broad range of careers available;
- offers counsel on specific vocational opportunities;
- assists the student in obtaining part-time summer employment, as well as full-time career employment;
- aids the individual in evaluating graduate study as an element of professional preparation;
- acquaints candidates with the recruiting process to the end that they will make a most effective presentation of their qualifications.

The Placement Office keeps a complete, up-to-date set of credentials on all students who register with that office. The office sets up campus interviews, as well as duplicating credentials for recruiters. Credentials are also forwarded to graduate schools, government agencies, and prospective employers. Students seeking information about placement services are welcome to contact the Placement Office.

## **Student Union and Student Center**

A Student Union at Nos. 92 and 94 Bedford Street in Portland and a Student Center at Gorham provide facilities for out-of-class activities or for leisure moments on campus, including lounge space, game rooms, study areas, snack facilities, and meeting rooms where organizations are able to schedule events.



**Student Union buildings at the Portland Campus**

## **Student Housing**

The Gorham campus provides living accommodations for approximately 1,000 men and women students. Both Portland and Gorham Housing Offices are located in the Educational Services Office to assist students who are either living on or off-campus. Both offices also maintain an up-to-date file of rooms, apartments, and homes which are for rent in the community. Students wishing housing on the Gorham Campus should file an application with the Housing Office.

Before a room is assigned to a student in a residence hall, the student will be required to sign a room contract for the academic year or the remaining part thereof, depending upon the date of admission to the hall. All residence-hall students must also contract for meals.

Students living off campus may contract for all their meals at the cafeteria at the Standard rate, listed under "Financial Information," or they may make their own arrangements. Individual meals or snacks may be purchased at either the Gorham cafeteria or the Portland cafeteria during the hours when these cafeterias are open to commuting students.

## **Counseling and Testing Center**

Students experiencing educational, vocational, emotional, and other personal concerns are offered individual attention by the University counseling specialists. Students may make appointments through the Counseling Office at both campuses. This service is free of charge.

Although counseling is a major responsibility of the Counseling and Testing Center, students are assisted in whatever personal service they need. For

example, they may receive specialized testing through interest inventories, personal preference instruments, aptitude tests, or tests required for admission to graduate schools. These are all conducted at the Counseling and Testing Center.

### **Foreign Student Adviser**

The University maintains an office providing information to assist all students who are not citizens of the United States. The Foreign Student Adviser aids these students in interpreting the administrative regulations of the University; the local, state, and federal laws; the locally accepted standards of conduct; and the expectations and reactions of other persons encountered in the University community.

### **Veterans' Services**

The University provides the veteran with supportive services through both the Educational Services and the Registrar's Office. Professional advice concerning programs, laws, regulations, and educational benefits can be secured from the Veteran Coordinator, while the Registrar's Office provides enrollment certification in order that the veteran may receive all educational benefits.

### **National Students Exchange**

In 1973 UMPG became a member of NSE which enables us to provide national educational outlets for one year to our undergraduate students. Similar to Junior Year Abroad, this program offers UMPG students a year elsewhere at another member institution in the United States. Member institutions include the University of Hawaii, Morgan State College, University of Oregon, Ohio University, and sixteen other similar institutions. The exchange program also allows students from member institutions in other parts of the United States to reciprocally attend UMPG. Information on this program may be obtained from the UMPG Admissions Office.

### **Student Handbook**

The Educational Services Office of the University of Maine at Portland-Gorham compiles the official **Student Handbook**, which explains such matters as campus policies, the governance structure, and the functions of various campus offices. The handbook also contains the UMPG Disciplinary Code, which is designed to protect the rights of all individuals in the University. The handbook is distributed to all registered students.

## **CAMPUS REGULATIONS**

### **Disciplinary Code**

The University Disciplinary Officer and the Judiciary Committee enforce the campus rules and regulations as outlined in the UMPG Disciplinary Code, which is published in the Student Handbook. All students are expected to read and act in accordance with these campus regulations.

### **Motor Vehicles**

In the interest of safety for all students, all vehicles utilizing campus parking must be registered with the Department of Police and Security, and must show a valid parking sticker. Parking stickers may be obtained during regular business hours at the Department of Police and Security on either campus.

Because of limited parking space, freshmen and sophomores classified as resident students are not permitted to have or operate motor vehicles on the Gorham Campus.

# CULTURAL ACTIVITIES

## ART GALLERY

UMPG maintains an Art Gallery (located on the Gorham Campus) which offers exhibitions showing current developments in all areas of the visual arts. Visiting exhibitors often give lectures, workshops, and informal seminars for UMPG students, faculty, and the general community. Students participate fully in the many aspects of running the Art Gallery and also operate their own Student Art Gallery. The Gallery exists to enrich the cultural life of UMPG and is open without charge to the public from 12 to 5 p.m. daily during shows. Exhibition and program schedules may be obtained from Prof. Juris Ubans or from the Office of the Dean of CLA.

## SOUTHWORTH PLANETARIUM

The Southworth Planetarium was donated to UMPG by Mrs. Constant Southworth in memory of her husband. Located in the Science Building on the Portland Campus, the Planetarium is a mechanical-optical-electrical device that projects the night sky for any place on earth at any time: present, past, or future. UMPG students and thousands of people from the Greater Portland Area visit the Planetarium each year. Schedules of showings may be obtained from Prof. George Ayers or the Office of the Dean of CLA. Schedules are also posted on principal bulletin boards and listed in calendars of events distributed on both campuses.

## MUSEUM OF MAN

UMPG has a Museum of Man (located on the Gorham Campus) which provides a unique experience for students and the community. It is designed to tell the story of human culture through the works man has created 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 Prof. Robert French or from the Office of the Dean of CLA.

## MUSIC AT UMPG

The CLA Music Department offers opportunities for all students to participate in the experience of music. Every year it sponsors a large number of public concerts and recitals, always open to students at no cost. The **Concert Band**, the **Brass Ensemble**, the **Gorham Chorale**, the **A Cappella Choir**, and the **Gorham Chamber Orchestra** present a total of at least six regular concerts each year. In addition, the department presents about twenty student recitals per year and a weekly Recital Class each Friday at 11:00 a.m. Students are welcome to attend any of these events. There are occasional workshops of varied nature which students may attend, as well as several presentations by visiting high school vocal and instrumental groups. More information and performance schedules may be obtained from the Music Department or from the Office of the Dean of CLA.



### THEATRE AT UMPG

The Theatre/Communications Department offers a wide variety of programs that are available to UMPG students and the community. In addition to being able to participate in quality theatre productions, students have the opportunity to attend a variety of plays during the year. The **Art Theatre** and the **Treehouse Players** offer a number of productions on a regularly scheduled basis. Play schedules and brochures may be obtained from the Department or from the Office of the Dean of CLA.

### INTERNATIONAL FILM SERIES

Sponsored by the Cultural Affairs Committee, the weekly screenings of the International Films bring to the UMPG community a broad range of films—from historically important masterpieces to the most recent developments in the film world. The screenings are at 7:30 P.M. on Thursday evenings in Bailey Auditorium (Gorham Campus) and are open to the public without charge. Schedules and further information may be obtained from Prof. Juris Ubans or from the Office of the Dean of CLA.

### DISTINGUISHED SCHOLARS SERIES

Every year the College of Liberal Arts sponsors a series of lectures by leading scholars in a variety of disciplines. Speakers in this series give an evening presentation which is available (free of charge) to UMPG students, faculty, and the general public. In addition, many of the speakers offer informal seminars for students at the request of departments or interested groups. Further information and brochures may be obtained from the Office of the Dean of CLA.



## ALUMNI CENTER

The UMPG Alumni Center is located on the Portland Campus in the old Deering Farmhouse, built when Thomas Jefferson was President of the United States. It is a familiar landmark to members of the community.

The recent appointment of an Alumni Coordinator for the University of Maine at Portland-Gorham is intended to insure the development of an organization in which alumni can participate. Groups with particular loyalties to any part of the University may expect assistance in carrying on their activities.

The Gorham Alumni Association, with 6500 members and a history of ninety years, now promotes UMPG with special emphasis on the campus "on the Hill." The UMPG Alumni Association, with over 5500 members, encompasses the graduates of Portland Junior College, Portland University, University of Maine in Portland, and University of Maine at Portland-Gorham. Its Board of Directors, composed of sixteen members, includes representatives of the aforementioned predecessor institutions, members of GAA, and a member of the student body. The Gorham and UMPG Alumni Associations cooperate and complement each other in serving the University. The School of Nursing is in the process of forming its association and has representation on the UMPG Alumni Association Board of Directors. The University of Maine School of Law enjoys its own alumni association, the University of Maine Law Alumni Association, and encourages membership.

## LIBRARIES, RECORDINGS, AND BOOKSTORES

### LIBRARY FACILITIES

The University of Maine at Portland-Gorham has full library facilities on both of its campuses. UMPG students are encouraged to draw upon the resources of both the Bailey Hall Library on the Gorham Campus and the Bonney Hall Library on the Portland Campus. The libraries house over 180,000 cataloged volumes in addition to some 25,000 microfilms, 15,000 government documents, and approximately 1,900 periodical subscriptions.

Both libraries have specialized collections of books which are no longer generally available. Some of these collections are in the form of bound volumes, whereas others have been photographed in microfiche form. The entire library collection of Thomas Jefferson, composed of books printed before or immediately after the American Revolution, is available on microfiche at both campuses. The American Culture series is also available on microfilm at the Portland Campus. In a similar way, newspaper collections are preserved on microfilm.

Both libraries also have a collection of musical recordings, as well as convenient listening facilities. Students are encouraged to make use of the libraries, not only for looking up source material for assigned academic work, but also for cultural browsing and esthetic enjoyment.

The University of Maine School of Law library, located on the Portland Campus, has over 100,000 volumes and subscribes to more than 500 journals. This library is primarily for those students studying for law or law-related degrees.

## LITERARY RECORDINGS IN THE LANGUAGE LAB

The Language Lab in 203 Payson Smith Hall on the Portland Campus contains a number of professional recordings of works by Chaucer, Shakespeare, and such modern poets as T. S. Eliot, as well as taped recordings of material in several foreign languages. Some of the UMPG faculty also record class lectures for the benefit of students who wish to review such material or for others who are particularly interested in the subject matter. The facilities of the Language Lab are available to all students at UMPG.

## THE BOOKSTORES

In addition to textbooks and stationery supplies, the bookstores on both campuses carry a number of other items particularly of interest to the University student. Students who wish to start accumulating a personal library will find that the bookstores carry an extensive selection of paperbacks representing both fiction and nonfiction and at a cost much lower than that of the same books in hard covers.



## INTERCOLLEGIATE ATHLETICS

### INTERCOLLEGIATE ATHLETICS FOR MEN

Intercollegiate athletics, an integral part of the physical education program, provides special opportunities to develop physical skills and to encourage leadership and sportsmanship among outstanding athletes.

As a member of the New England State College Athletic Conference, the University of Maine at Portland-Gorham competes successfully in varsity cross country, track and field, soccer, sailing, basketball, hockey, skiing, baseball, tennis, and golf. A freshman basketball schedule completes the present program.

As a member of the National Association of Intercollegiate Athletics (District 32), the University has participated in district play-offs in soccer, cross country, basketball, golf, and tennis. The University of Maine at Portland-Gorham is also a member of the National Collegiate Athletic Association, the Eastern College Athletic Conference, and the New England College Athletic Conference. The Warren Hill Gymnasium on the Gorham campus and the new physical education building on the Portland campus are two of the best designed and adequately equipped sports facilities in the area.

### **INTERCOLLEGIATE ATHLETICS FOR WOMEN**

Intercollegiate athletic teams for women are available to all students who are full-time undergraduates at UMPG. Women may participate in field hockey, tennis, ten pin bowling, volleyball, basketball, badminton, skiing, gymnastics, and lacrosse. UMPG is a member of the Maine Association for Physical Education and Intercollegiate Athletics for Women, the Eastern Association for Intercollegiate Sports for Women, and the Association for Intercollegiate Athletics for Women. As a member of these organizations, UMPG teams have the opportunity to qualify for and participate in state, regional, and national tournaments.

### **INTRAMURALS AND COMMUNITY RECREATIVE SERVICES**

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

A partial list of intramural sports includes: soccer, tennis, golf, bowling, flag football, cross country, table tennis, basketball, wrestling, badminton, volleyball, softball, track and field, cycle racing, handball, squash, paddleball, foul-shooting, and archery.

Team play, sportsmanship, and individual participation are encouraged throughout the programs. Trophies are awarded to individual members of the championship team in each sport.

Any student or organization may organize a team and enter it for competition. Students are encouraged to form teams consisting of students from the same high school, physical education class, fraternity, neighborhood, dormitory, major area, or rooming house. Independent players who have difficulty finding a team in which to participate should report to the Intramural Office for assistance. All business pertinent to intramural activities must be carried on in the Intramural Office, a branch of which is located in the gymnasium building on either campus. In addition to such organized sports, the gymnasiums on both campuses are open regularly for drop-in activities.

# UMPG Academic Policies

1973-1974

## GENERAL REQUIREMENTS FOR ALL BACCALAUREATE CANDIDATES

The General Education Requirement of UMPG 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 on the inside front cover of this catalog.

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

Departmental courses in the student's major may not be applied toward fulfillment of the General Education Requirement.

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

The School of Education, the School of Nursing, and one or more departments of the College of Liberal Arts also have a Physical Education Requirement. This requirement, together with any exemption criteria, is explained in the section of the catalog having to do with the School or Department involved.

## 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 that 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 taken before the regularly scheduled time.

## 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. Courses not made up within the time limit are automatically marked as F.

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.

## THE GRADING SYSTEM

Grades at the University of Maine at Portland-Gorham 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 below on "Minimum Grade Policy" and "D Grade 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, due to extraordinary circumstances, has failed to complete required work. Required work must be completed and a grade submitted in the semester following the semester in which the I grade was received. An I which is not removed during this period becomes an F.

W — Withdrawal during the second five weeks of a semester.

WP — Withdrawal while passing: Approved withdrawal from a course, after the end of the first ten weeks, when the student is doing satisfactory work to the date of recommendation for the withdrawal. The WP grade is not considered in grade-point average computation. The last day to withdraw from a course is the last day of classes.

WF — Withdrawal while failing: Approved withdrawal from a course, after the first ten weeks, when the student is doing failing work to the date of recommendation for the withdrawal. The WF grade is treated as an F in grade-point average computation. The last day to withdraw from a course is the last day of classes.

## 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

If a student in the School of Business, School of Education, or School of Nursing repeats a course, the initial grade remains on the record but does not count toward the grade-point average or for credit. When a student in the College of Liberal Arts repeats a course, the second grade stands and the initial grade is removed from the transcript.

## MINIMUM GRADE POLICY

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

	<i>Cumulative Minimum Grade-Point Averages</i>	
	<i>For Good Standing</i>	<i>For Probationary Standing</i>
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 & Seniors: end of each semester	2.00	1.80

Students with majors or minors in English, History, or the Social Sciences Area, including both those in the baccalaureate program of the College of Liberal Arts and also those in the Secondary Education program of the School of Education, must achieve at least six credits with grades of B or better in their major or minor requirements. No grades of D will count toward fulfillment of the major or minor requirements in these programs.

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.

## **PASS-FAIL OPTION**

Outside of courses in the major or minor area of concentration, or courses taken to satisfy UMPG 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.

An undergraduate in the School 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. 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.

## **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.

## **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 Liberal Arts.

## **ADD-DROP**

Once a student has completed registration, a period of one week is permitted for dropping or adding courses. This procedure permits a student to make the necessary course changes in the planned curriculum. Also, during the first five weeks of the term a student may drop any course without having a grade recorded. All Add-Drops are initiated at the Registrar's Office. All students who register for a course and withdraw will be graded WF unless they officially complete the procedure of dropping the course.

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

## CHANGE OF MAJOR WITHIN A SCHOOL OR COLLEGE

Permission to change from one major to another is granted only by the Office of the Dean and the head of the department in which the student expects to major. A form for the change must be obtained from the Dean's Office. A change-of-major form must be filed with both the Dean's Office and 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.

## 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 "WF" or a "WP." The "WF" will be counted in the grade-point average.

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.

## 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 advisers 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.

## PROBATION

A student may be placed on academic probation by the Committee on Academic Standing 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 remove himself from probation through Summer Session courses if the courses have been approved in advance by the adviser and the appropriate Dean.



## 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 adviser 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 college are:

<i>School or College</i>	<i>Required Number of Credit-Hours</i>			
	<i>Sophomore</i>	<i>Junior</i>	<i>Senior</i>	<i>Total to Graduate</i>
Liberal Arts	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	30	60	90	120

## GRADUATION REQUIREMENTS

A candidate for a bachelor's degree must (a) receive passing grades in all 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

Baccalaureate Degrees with Distinction are conferred at commencement for the following attainments in rank:

Cum Laude:	3.00 - 3.24
Magna Cum Laude:	3.25 - 3.49
Summa Cum Laude:	3.50 - 4.00

All candidates for graduation with distinction must take their senior year at UMPG or receive permission from their dean to complete work elsewhere.

The senior year is defined as the final 24 degree credits for which the student is enrolled prior to graduation.

## 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 UMPG schools and colleges. Students should check with appropriate dean for details.

# College of Liberal Arts

KONNILYN G. FEIG, Dean

CONSTANCE M. CARROLL, Associate Dean

WALDECK E. MAINVILLE, JR., Assistant Dean

The College of Liberal Arts 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 experience at UMPG. With good advising, experimentation and commitment, all Liberal Arts students have the opportunity to follow a quality program suited to their present needs and future aspirations.

In addition to meeting the needs of Liberal Arts students, the College of Liberal Arts offers programs of study and service to students in all other schools of the University. Students enrolled in the School 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 Liberal Arts.

## CLA DEPARTMENTAL ORGANIZATION

The College of Liberal Arts at UMPG is composed of the following departments, each of which is described in the following pages:

- Art Department
- Biology Department
- English Department
- Foreign Languages and Classics Department
- Geography-Anthropology Department
- History Department
- Mathematics Department
- Music Department
- Philosophy Department
- Physical Sciences and Engineering Department
- Political Science Department — Criminal Justice Program
- Psychology Department
- Social Welfare Department
- Sociology Department
- Theatre/Communications 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:

Art	History	Psychology
Biology	Mathematics	Social Welfare
Economics	Music	Sociology
English	Philosophy	Theatre/Communications
French	Political Science	

## BACHELOR OF SCIENCE DEGREE PROGRAM

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

## INTERDISCIPLINARY DEGREE OPTIONS

Students in Liberal Arts 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 LIBERAL ARTS FOR THE SCHOOL OF EDUCATION

The College of Liberal Arts as one of its services provides a number of programs which enable students in the School of Education to concentrate in various subject areas. The Major and Minor programs in CLA 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.)
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
Physical Sciences 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)
Theatre/Communications ....	Theatre/Communications Major (Secondary Education)

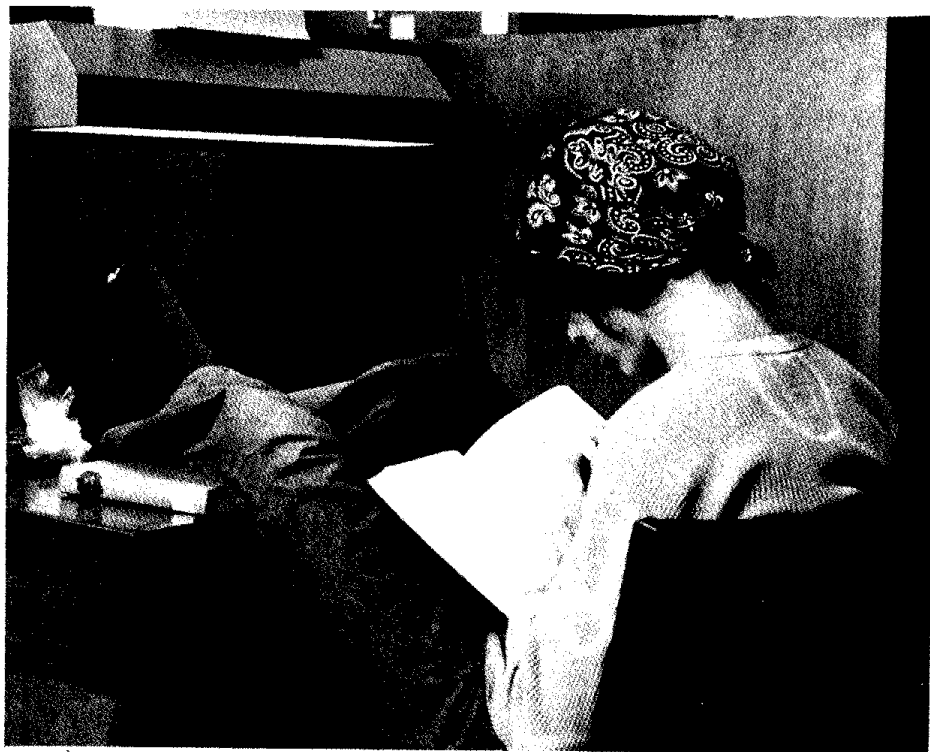
## PLANNING AN ACADEMIC PROGRAM IN CLA

### ADVISING

Perhaps the most important component in planning an academic program in the College of Liberal Arts 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. CLA 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 at UMPG. 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 CLA. 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, students 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.



## **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 Liberal Arts 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 CLA departmental sequence and the sequence for Education majors in this section of the catalog.

### **COLLEGE REQUIREMENTS**

The College of Liberal Arts 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 Liberal Arts.

## UNIVERSITY GENERAL EDUCATION REQUIREMENTS\*

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

### AREA 1: HUMANITIES — 6 credits from:

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

### AREA 2: FINE AND APPLIED ARTS — 6 credits from:

ART HISTORY/APPRECIATION (ARTH)	MUSIC (MUS)
ART STUDIO COURSES (ARTS)	THEATRE/COMMUNICATIONS (TC)
DANCE (DNCE)	

### AREA 3: SCIENCE AND MATHEMATICS — 6 credits from:

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

### AREA 4: SOCIAL SCIENCES — 6 credits from:

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

### AREA 5: GENERAL — 6 credits from:

ANY COURSES FROM THE ABOVE ACADEMIC GROUPINGS  
COLLEGE OF LIBERAL ARTS (CLA) COURSES  
SCOGIS COURSES (SCO)  
\*\*PHYSICAL EDUCATION COURSES (PE)

\*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 Liberal Arts Students, but may be elected under Area 5 of the General Education Requirements.

## **CLA MAJORS, MINORS, AND PROGRAMS**

CLA 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 CLA.

### **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. 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 CLA.

### **LIBERAL STUDIES MAJOR**

The Liberal Studies Major is a structured, generalized program in the College of Liberal Arts 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 CLA.

### **INDEPENDENT STUDY TERM**

Students who have identified an academic project or program which they feel would contribute significantly to their program at UMPG 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 CLA.

# Art

Associate Professors Bearce, Ubans; Assistant Professors Franklin, Miner, Moore (Chairman), Rakovan, Sawtelle.

The Department of Art offers a major in Art in the College of Liberal Arts leading to a Bachelor of Arts degree, and a major in Art Education in the School of Education leading to a Bachelor of Science degree. Graduates with a Bachelor of Science degree are qualified to teach or supervise art in all grades of the public schools.

## ADMISSIONS PROCEDURES

### DEPARTMENT OF ART

Each applicant should first follow the standard admission procedures of UMPC, and then submit to the Department of Art (Gorham Campus) a portfolio of original art work. This portfolio should number approximately 20 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, films, and slides may be included. Slides or photographs should be submitted of three-dimensional work. Portfolios must be received by the Department of Art no later than February 15 of each year.

Following the portfolio deadline of February 15, applicants will be invited to visit the Gorham Campus for a day of interviews and conferences. The details of the schedule will be available to the applicants upon their arrival and luncheon will be served at the Student Dining Center. Parents wishing to accompany applicants and become acquainted with the campus are cordially invited. Portfolios will be returned at this time.

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 concerning submission of portfolio, as described above.

## 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, which are printed inside the front cover of this catalog.

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



# 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 102 Film as Image and Idea
- ARTH 111 History of Art I (space permitting)
- ARTH 112 History of Art II (space permitting and with permission of the instructor)
- ARTS 141 Design I (space permitting)
- ARTS 151 Drawing I (space permitting)

## REQUIREMENTS FOR ART MAJORS

### REQUIREMENTS FOR B.A. DEGREE\*

#### ART CORE (15 credits)

- ARTS 141 Design I
- ARTS 142 Design II
- ARTS 151 Drawing I
- ARTS 152 Drawing II
- ARTH Elective (100 level)

#### ART HISTORY REQUIREMENT (9 credits)

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

- ARTH Elective
- ARTH Elective

#### ART STUDIO REQUIREMENT (18 credits)

- ARTS Elective
- ARTS Elective
- ARTS Elective
- ARTS Elective
- ARTS Elective
- ARTS Elective

#### GENERAL EDUCATION REQUIRE- MENT (30 credits)

See inside cover and page 47.

#### ELECTIVES\* (48 credits)

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

### REQUIREMENTS FOR B.S. DEGREE

#### ART CORE (15 credits)

- ARTS 141 Design I
- ARTS 142 Design II
- ARTS 151 Drawing I
- ARTS 152 Drawing II
- ARTH Elective (100 level)

#### ART HISTORY REQUIREMENT (6 credits)

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

- ARTH Elective

#### ART STUDIO REQUIREMENT (27 credits)

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

#### PROFESSIONAL EDUCATION REQUIREMENT (24 credits)

- ARTE 221 Practicum in Art  
Education
- ARTE 321 Principles and Pro-  
cedures in Art  
Education
- EDU 103 Philosophy of Education
- EDU 333 Human Growth and  
Development
- EDU 324 Student Teaching  
(6-cr. course)
- EDU 324 Student Teaching  
(6-cr. course)

#### GENERAL EDUCATION REQUIRE- MENT (30 credits)

See inside cover and page 47.

#### ELECTIVES (18 credits)



## COURSES IN ART

### ART HISTORY AND APPRECIATION

#### **ARTH 101 Introduction to Art**

Rakovan, Miner

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. Prerequisite: permission of instructor. Three credit hours

#### **ARTH 102 Film as Image and Idea**

Ubans

An approach to the appreciation of motion pictures and allied arts through the understanding and analysis of the context, range, and resources of this, the only major form of creative expression conceived and developed entirely within the industrial age. Principles of evaluation, illustrated through the development of motion pictures to their present state. Prerequisite: permission of the instructor. Three credit hours

#### **ARTH 111 History of Art I**

Miner

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. Three credit hours

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

Miner

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: ARTH 111 or permission. Three credit hours

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

Staff

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. Three credit hours

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

Staff

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. Three credit hours

**ARTH 314 Renaissance Art**

Miner

The effects of the ideas of ancient Greece and Rome on the art forms of the 15th and 16th centuries in Florence, Rome, and other parts of Europe. Northern European ideas in conflict and resolution. Prerequisite: ARTH 112. Three credit hours

**ARTH 316 Western Art from 1850-1900**

Miner

A study of the major movements in the first half of the modern era. Prerequisite: ARTH 112. Three credit hours

**ARTH 317 Western Art from 1900-1950**

Miner

A continuation of ARTH 316 including the growth and development of the modern "isms". Prerequisite: ARTH 112. Three credit hours

**ARTH 411 Philosophy of Art**

Miner, Moore

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. Three credit hours

**ARTH 412 Contemporary Art**

Ubans

Examination of current developments in all the visual media: 1950 to the present. Prerequisite: ARTH 112. Three credit hours

**ART STUDIO COURSES**

**ARTS 141 Design I**

Staff

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 or those with permission of instructor. Three credit hours

**ARTS 142 Design II**

Staff

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. Three credit hours

**ARTS 143 Design III**

Staff

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. Three credit hours

**ARTS 151 Drawing I**

Staff

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.

Three credit hours

**ARTS 152 Drawing II**

Staff

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

Three credit hours

**ARTS 153 Drawing III**

Staff

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

Three credit hours

**ARTS 231 Materials and Techniques**

Rakovan

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.

Three credit hours

**ARTS 232 Ceramics I**

Franklin

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.

Three credit hours

**ARTS 233 Metalwork I**

Staff

An introduction to the methods and processes of forming and treating metals by forging, casting, enameling, stone-setting, vessel-raising. Emphasis on craftsmanship and design concepts. Prerequisite: Art core courses.

Three credit hours

**ARTS 234 Weaving I**

Staff

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

Three credit hours

**ARTS 241 Design IV**

Staff

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

Three credit hours

**ARTS 251 Drawing IV**

Moore

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

Three credit hours

**ARTS 261 Painting I**

Staff

An introduction to pigments, grounds, and methods of painting in varying media. Emphasis on technical and formal problems. Prerequisite: Art core courses.

Three credit hours

**ARTS 271 Photography I**

Ubans

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.

Three credit hours

**ARTS 281 Printmaking—Relief**

Staff

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

Three credit hours

- ARTS 282 Printmaking—Stencil** Rakovan  
Introduction to silk screen printing, including photo-mechanical reproduction. Pre-requisite: Art core courses. Three credit hours
- ARTS 283 Printmaking Intaglio I** Bearce  
Introduction to Intaglio printmaking, using etching, engraving, aquatint, mezzotint, and drypoint. Prerequisite: Art core courses. Three credit hours
- ARTS 284 Printmaking Lithography I** Rakovan  
Introduction to the process of lithographic printing from stones. Prerequisite: Art core courses. Three credit hours
- ARTS 291 Sculpture I** Franklin  
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. Three credit hours
- ARTS 332 Ceramics II** Franklin  
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. Three credit hours
- ARTS 334 Weaving II** Staff  
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. Three credit hours
- ARTS 351 Drawing V** Moore  
Making personal and complete drawings and series of drawings. Emphasis on individual concepts and personal expression. Prerequisite: ARTS 251. Three credit hours
- ARTS 361 Painting II** Staff  
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. Three credit hours
- ARTS 362 Painting III** Staff  
Exploration of the concepts and techniques of painting with emphasis on individual expression. Prerequisite: ARTS 361. Three credit hours
- ARTS 363 Watercolor** Miner  
Watercolor, wash, dry-brush, ink and wash, gouache, and other techniques in water-media. Emphasis on individual concepts and personal expression. Prerequisite: Art core courses. Three credit hours
- ARTS 371 Photography II** Ubans  
Exploration of concepts and techniques of photography with emphasis on individual forms of expression. Prerequisite: ARTS 271. Three credit hours
- ARTS 383 Printmaking Intaglio II** Bearce  
Continuation of Intaglio I with emphasis on viscosity techniques. Prerequisite: ARTS 283. Three credit hours
- ARTS 384 Printmaking Lithography II** Rakovan  
Continuation of Lithography I with emphasis on color printing. Prerequisite: ARTS 284. Three credit hours

**ARTS 391 Sculpture II**

The theory and practice of sculptural composition using a variety of techniques with traditional and new materials. Prerequisite: ARTS 291. Franklin  
Three credit hours

**ARTS 461 Painting IV**

Continuation of Painting III. Emphasis on individual concepts and personal expression. Prerequisite: ARTS 362. Staff  
Three credit hours

**ARTS 462 Painting V**

Continuation of Painting IV. Investigation of advanced painting problems with emphasis on individual expression. Prerequisite: ARTS 461. Staff  
Three credit hours

**ARTS 408 Independent Study in Art (Senior level degree project)**

An opportunity for the student who has demonstrated critical and analytical capability to pursue a project independently culminating in an artistic or technical creation, reflecting a high caliber of performance. Prerequisite: Permission of the Department. Staff  
One to six credit hours

NOTE: Independent Study in Art may also be taken in a variety of art areas numbered as follows:

- ARTS 418 Art History
- ARTS 428 Art Education
- ARTS 438 Crafts
- ARTS 448 Design
- ARTS 458 Drawing
- ARTS 468 Photography
- ARTS 478 Printmaking
- ARTS 488 Sculpture

### ART EDUCATION

**ARTE 121 Art for the Classroom Teacher**

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. Sawtelle  
Three credit hours

**ARTE 122 Handcrafts**

An introduction to the general handcrafts using simple tools and materials. Permission of instructor. Sawtelle  
Three credit hours

**ARTE 221 Practicum in Art Education (Saturday Workshop)**

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 from elementary and secondary schools in the area. Prerequisite: Art Core courses. Sawtelle  
Three credit hours

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

A study of growth and development in the creative abilities of elementary and secondary students; introduction to methods of teaching art designed to enrich the curriculum. Prerequisite: ARTE 221. Sawtelle  
Three credit hours

**ARTE 421 Student Teaching Seminar**

For student teachers in art, this course takes the form of discussion and problem solving. Students endeavor to arrive at a tentative philosophy of art education and basic instructional techniques. Prerequisite: ARTE 321 and concurrent enrollment in EDU 324. Sawtelle  
Three credit hours

# Biology

Professor Najarian (Chairman); Associate Professors Barker, Greenwood, Holmes, Kern, Riciputi, Schwinck; Assistant Professors Dorsey, Hartman, Mazurkiewicz.

A four-year program is offered in biological sciences. The program is designed so that upon completion, a student may enter graduate school, public school teaching, medicine, dentistry, veterinary medicine, or allied health fields.

A Biological Science minor, requiring 18 credit hours in basic and advanced Biology, is available in Secondary Education.

Students who are in the Elementary or Kindergarten-Primary programs of the School of Education, and who are interested in the Biological Sciences, are referred to the Science Area program described in the section of the catalog dealing with Physical Sciences and Engineering. This program includes both physical and biological sciences and offers either an 18-hour academic minor or a 30-hour academic major for such students.

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.

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

## REQUIREMENTS FOR A BIOLOGY MAJOR IN LIBERAL ARTS OR A BIOLOGICAL SCIENCE MAJOR IN SECONDARY EDUCATION

		<i>Credit hours</i>
*MS 150	Calculus I	3
PHYS 121 and 122	General Physics (4 credits each semester) to be taken as a two-semester sequence	8
CHEM 113 and 114	Chemical Principles (4 credits each semester) to be taken as a two-semester sequence	8
CHEM 251 and 252	Organic Chemistry (3 credits each semester) to be taken as a two-semester sequence	6
CHEM 261 and 262	Organic Chemistry Laboratory (2 credits each semester) to be taken as a two- semester sequence	4
**Foreign Language through Intermediate Level (Liberal Arts only)		0-6
Physical Education		2
BIO 101 and 102	Biological Principles (3 credits) plus Bio- logical Experiences (1 credit) to be taken together	4
BIO 103 and 104	Biological Diversity (3 credits) plus Survey of Animals and Plants (1 credit) to be taken together	4
BIO 201	Principles of Genetics	3

BIO 203 and 204	Developmental Biology (2 credits) plus Comparative Vertebrate Embryology (2 credits) to be taken together	4
BIO 311 and 312	Microbiology (3 credits) plus Microbiological Laboratory (2 credits) to be taken together	5
Choice: BIO 331 & 332	Ecological Principles (2 credits) plus Field Ecology (2 credits) to be taken together	4
or BIO 341 & 342	Principles of Limnology (2 credits) plus Limnological Methods (2 credits) to be taken together	4
Choice: BIO 401 & 402	General Physiology (2 credits) plus General Physiology Laboratory (2 credits) to be taken together	4
or BIO 411 & 412	Plant Physiology (3 credits) plus Plant Physiology Laboratory (1 credit) to be taken together	4
or BIO 451 & 452	Comparative Physiology (2 credits) plus Comparative Physiology Laboratory (2 credits) to be taken together	4
BIO 421	Biology Seminar I	1
BIO 431	Biology Seminar II	1
TOTAL:		61 - 70

\*Students not prepared for MS 150 should precede this course with MS 140, Pre-Calculus Mathematics (3 credits).

\*\*Credits to be earned depend upon the language proficiency of the student. Challenge examinations are available.

## COURSES IN BIOLOGICAL SCIENCES

### BIO 101 Biological Principles

Staff

A study of the structure and function of cells and a consideration of multicellular organisms, in terms of heredity, evolution, and ecology.

Three credit hours

### BIO 102 Biological Experiences

Staff

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.

One credit hour

### BIO 103 Biological Diversity

Staff

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

Three credit hours

### BIO 104 Survey of Animals and Plants

Staff

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

One credit hour

### BIO 111 Human Anatomy and Physiology

Kern

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

Three credit hours



**BIO 112 Practical Human Anatomy and Physiology****Kern**

Laboratory studies of the structures and functions of the human body, including microscopy and physiological experiments. Prerequisites: BIO 102 or equivalent and BIO 111 or concurrent with BIO 111. One credit hour

**BIO 151 Neurobiological Basis of Behavior****Hartman**

Comparative analysis of neural elements and processes with emphasis on reception, integration, and simple behaviors in lower and higher animals. Prerequisite: A Biology course or consent of the instructor. Three credit hours

**BIO 201 Principles of Genetics****Greenwood**

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. Three credit hours

**BIO 202 Experimental Genetics****Greenwood**

Practical laboratory experience in techniques used in genetics. Prerequisite: BIO 201, or concurrent with BIO 201. Two credit hours

**BIO 203 Developmental Biology****Greenwood**

A study of the embryology of several organisms, including man, and an analysis of the mechanisms which influence development. Current research in the fields of aging, regeneration, and metamorphosis will also be considered. Prerequisite: BIO 101. Two credit hours

**BIO 204 Comparative Vertebrate Embryology****Greenwood**

Laboratory experiments and observations on amphibian, chick, and mammalian embryos. Prerequisite: BIO 203 or concurrent with BIO 203. Two credit hours

**BIO 205 Evolution****Dorsey**

A study of the processes and evidences of organic evolution.

**Three credit hours****BIO 209 Vertebrate Zoology****Riciputi**

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. Three credit hours

**BIO 210 Vertebrate Zoology Lab****Riciputi**

Investigations into the classification, form, structure, and functioning of the major groups of vertebrates. Prerequisite: BIO 104. Two credit hours

**BIO 215 Vascular Botany****Barker**

A study of the major groups of vascular plants with emphasis on morphology, life cycles, and ecology. Prerequisites: BIO 101, and BIO 103. Three credit hours

**BIO 216 Vascular Field Botany****Barker**

Laboratory and field studies on the vascular plants of Maine. Prerequisites: BIO 215, or concurrent with BIO 215. One credit hour

**BIO 225 Non-Vascular Botany****Barker**

A study of the major groups of non-vascular plants with emphasis on morphology, life cycles, and ecology. Prerequisites: BIO 101 and BIO 103. Three credit hours

**BIO 226 Non-Vascular Field Botany****Barker**

Laboratory and field studies on the non-vascular plants of Maine. Prerequisite: BIO 225, or concurrent with BIO 225. One credit hour

**BIO 251 History of Biology**

Dorsey

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. Three credit hours

**BIO 292 Ornithology**

Riciputi

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. Two credit hours

**BIO 311 Microbiology**

Holmes

A consideration of protozoa, fungi, bacteria, and viruses of biological and medical importance. Prerequisites: BIO 101 and CHEM 114. Three credit hours

**BIO 312 Microbiological Laboratory**

Holmes

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

**BIO 321 Histology**

Holmes

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

**BIO 331 Ecological Principles**

Mazurkiewicz

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

**BIO 332 Field Ecology**

Mazurkiewicz

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

**BIO 341 Principles of Limnology**

Mazurkiewicz

Geological, physical, chemical, and biological interrelationships of inland waters, including man's impact on these relationships. Prerequisite: BIO 101. Two credit hours

**BIO 342 Limnological Methods**

Mazurkiewicz

Laboratory and field methods of investigating the ecological attributes and significance of inland waters. Prerequisite: BIO 341, or concurrent with BIO 341.

**BIO 351 Invertebrate Zoology**

Najarian

The morphology, physiology, and phylogenetic relationships of non-backboned animals. Prerequisite: BIO 101. Three credit hours

**BIO 352 Survey of Invertebrates**

Najarian

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

**BIO 361 Parasitology**

Najarian

The life histories and host-parasite relationships of animal parasites, with emphasis on those of men. Prerequisite: BIO 101. Two credit hours

**BIO 362 Parasitological Laboratory**

Najarian

The morphology and life cycles of parasitic protozoa, helminths, and arthropods. Prerequisite: BIO 361, or concurrent with BIO 361. Two credit hours

**BIO 372 Biological Techniques**

Dorsey

A survey of laboratory techniques used in Biology. Prerequisite: BIO 101.

Two credit hours

**BIO 381 Ichthyology**

Riciputi

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. Two credit hours

**BIO 382 Field Ichthyology**

Riciputi

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

**BIO 401 General Physiology**

Hartman

A study of physiological processes and their regulation in single-cell and multicellular organisms. Prerequisites: BIO 101, CHEM 252, and CHEM 262. Two credit hours

**BIO 402 General Physiology Lab**

Hartman

Laboratory examination of physiological mechanisms of single-cell and multicellular organisms. Concurrent with BIO 401. Two credit hours

**BIO 411 Plant Physiology**

Schwinck

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. Three credit hours

**BIO 412 Plant Physiology Laboratory**

Schwinck

Laboratory examination of phenomena in plant physiology. Prerequisite: concurrent with BIO 411. One credit hour

**BIO 421 Biology Seminar I**

Staff

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

**BIO 431 Biology Seminar II**

Staff

A continuation of BIO 421. Prerequisite: Biology seniors. One credit hour

**BIO 441 Problems in Biology**

Staff

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

**BIO 451 Comparative Physiology**

Hartman

A study of physiological processes and regulatory mechanisms in vertebrates and invertebrates. Prerequisite: BIO 401 or consent of instructor. Two credit hours

**BIO 452 Comparative Physiology Lab**

Hartman

Laboratory examination of the physiological processes and regulatory mechanisms of vertebrate and invertebrate animals. Prerequisite: Concurrent with BIO 451. Two credit hours

**BIO 461 Cell Mechanisms**

Holmes

A physico-chemical analysis of cell processes, with emphasis on mechanisms controlling growth, differentiation, and cell division. Prerequisites: BIO 101 and CHEM 252. Three credit hours

**BIO 471 Elements of Bioengineering**

Kirwin

A study of basic electrical and mechanical engineering techniques as they apply to biological systems; operating principles of apparatus for biological instrumentation. Prerequisites: BIO 101 and PHYS 122. Three credit hours

**BIO 481 Cell Biology**

Schwinck

Structure and function of cells on the cellular, subcellular, and molecular levels. Prerequisites: BIO 101 and BIO 102 and CHEM 252 or CHEM 202 or instructor's permission. Three credit hours

# Dance

Associate Professor Goodwin.

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

Goodwin

One credit hour

### **DNCE 301 Contemporary Dance II**

A continuation of DNCE 300.

Goodwin

One credit hour

### **DNCE 302 Contemporary Dance III**

A continuation of DNCE 301.

Goodwin

One credit hour

### **DNCE 303 Contemporary Dance IV**

A continuation of DNCE 302.

Goodwin

One credit hour

## Economics as a Major

In a Program

Leading to a Bachelor of Arts Degree

And in a Program

Of the School of Education

Leading to a B.S. in Ed. Degree

Students interested in receiving a Bachelor of Arts degree in Economics will be required to complete the same requirements as for the Bachelor of Science degree in Economics described under the "School of Business and Economics" section of this catalog, except that students in the Bachelor of Arts program may not take more than 42 hours of Economics courses or 21 hours of Business courses for credit toward a Bachelor of Arts degree.

Students in the School of Education may also obtain an academic major or minor in Economics in a program leading to the degree of Bachelor of Science in Education, as described in this catalog in the section dealing with the School of Business and Economics. For students in Secondary Education a Social Science Area Major with Concentration in Economics is also available, as described in the section of the catalog dealing with the Liberal Arts department of Geography-Anthropology.

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. These general requirements are printed inside the front cover of this catalog.

# English

Professors Bernard, Hanna (on leave, Spring Semester, 1974), Jaques, Rutherford (Chairman), Weeks; Associate Professors Baier (on leave, Fall Semester, 1973), Burke, Coffin (on leave, Spring Semester, 1974), Lewisohn, Reuter, Rosen (on leave, Fall Semester, 1973), Slavick; Assistant Professors Carner, Carper, O'Reilly, Selkin, Vincent, Wilson, Wolf (on leave); Instructor Milliken (on leave, Fall Semester, 1973).

## GENERAL REQUIREMENTS AND WAIVER POLICIES

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.
2. ENG 120 may be waived for a few exceptional students who can pass a qualifying examination administered by the English Department.
3. 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 School of Education may complete an English minor by passing 12 credits with at least a C and six credits with at least a B, for a total of 18 credits from the distributive categories listed below:

Category III — 3 credits

Category IV — 3 credits

Category VI — 6 credits

Categories VII and VIII — 6 credits

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

Students in Elementary Education or Kindergarten-Primary Education in the School 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 advisors in the School of Education.

## ENGLISH MAJOR PROGRAMS IN LIBERAL ARTS OR SECONDARY EDUCATION

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

Both Liberal Arts and Secondary Education English majors must meet the following English Department requirements:

1. English 120 and English 121 with at least a C.
2. At least 36 hours of courses acceptable for English major credit.
3. At least six of the 36 hours with a B or better, the rest with a C or better.
4. Major credit courses with a C or better in one each of the following:
  - (a) poetry or prose and poetry, (b) drama (other than Shakespeare), (c) fiction, (d) major figure (other than Shakespeare).
5. A course in Shakespeare with a C or better.
6. One course from each of the following categories with C or better: Category II, Category III, Category IV, Category VI-A, Category VI-B, Category VI-C, Category VI-D, Category VII, and Category VIII. Requirements specified in item 4 above may be satisfied through appropriate courses meeting the requirements of item 6.

## COURSE DESCRIPTIONS

### I — INTRODUCTORY COURSES

#### ENG 001 Writing Laboratory

Staff

Intended for the use of any student with a writing problem at any time in the college career. The laboratory will be run and supervised by the regular English staff with the help of advanced students. (Every semester) No credit

#### ENG 100 College Writing

Staff

An introductory course in writing at the college level. The course will deal with such matters as organizations, strategy, tone, and logic. Note: This course is in no way remedial, and offers graduation credit, but no major or humanities credit. (Every semester)

Three credit hours

#### ENG 120 Introduction to Literature

Staff

A general introduction to the various literary genres — poetry, short story, drama — which will include a study of critical terminology, close textual reading, and frequent practice in writing — at least six papers of 500-1000 words each, two in each of the genres. (Every semester)

Three credit hours

#### ENG 121 Literary Masterpieces

Bernard, Hanna, Reuter

A study of selected major works from western literature which will provide students with a common background in the most influential books of our culture. Required for all English majors. (Every semester)

Three credit hours

### II — WRITING COURSES

#### ENG 202 Poetry Workshop I

Lewisohn, 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. (Fall, even years)

Three credit hours

#### ENG 203 Poetry Workshop II

Lewisohn, Rosen

Continuation of ENG 202 with emphasis on trends in contemporary poetry and on the student's own creative writing ability. (Annually, spring)

Three credit hours

#### ENG 204 Advanced Writing

Selkin, Vincent

Study of various forms of discourse with concentration on exposition. Provides experience in logical analysis and in the uses of persona, appeals to reader, stylistic and fictional devices, and other strategies. (Annually)

Three credit hours

#### 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, even years)

Three credit hours

#### ENG 210 Expository Writing

Jaques

Primarily for juniors and seniors majoring in Business Administration. Training in clear expository writing of formal reports, business communications, and related materials. (Spring, even years)

Three credit hours

### 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. (Fall, odd years)

Three credit hours

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

Carner, Wilson

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 to seniors who want an overview. (Annually, fall)

Three credit hours

**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*. (Annually, spring)

Three credit hours

**ENG 369 Introduction to Literary Criticism**

Carner

The major methods of modern criticism, problems in aesthetics — intention, expression, relation of literature to other areas of study. Readings in ancient through modern critics, concentrating on the 20th century. (Annually)

Three credit hours

## IV — LINGUISTICS AND RELATED COURSES

**ENG 220 Old English**

Coffin

The student develops Old English reading ability by working with the best Old English poems and prose. Modern techniques of rapid language acquirement are used. (Annually, fall)

Three credit hours

**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)

Three credit hours

**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. (Annually, spring)

Three credit hours

**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. (Annually, fall)

Three credit hours

**ENG 384 Structural Linguistics and Culture**

Coffin

The course starts with the analysis of the structure of many languages. Knowledge of structure is then used to analyze art, religion, poetry. American Indian language and cultures constitute part of the course. Recommended for English and language teachers. (Annually, fall)

Three credit hours

**ENG 387 Semantics**

Coffin

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

Three credit hours

## V – NON-REQUIRED MAJOR CREDIT COURSES

### ENG 200 Topics in Literature

Carper, Coffin, Weeks

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 office. These courses may be offered in a two-semester sequence, and more than one section may be taken for credit. Typical sections may offer: The Epic, American Literature, the Literature of Alienation, Pop Semantics, The English Bible, The Nature of Poetry, Literature of Indians and Black Men, Literature and Insanity, The Politics of Literature. (Annually, fall)

Three credit hours

### 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. Douglass, Stowe, Melville, Twain, Whitman, 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, and Cleaver. (Spring, odd years)

Three credit hours

### ENG 351 Backgrounds of American Thought

Burke

Readings in the ideas and lives of those figures who were philosophically influential in American life. (Spring, even years)

Three credit hours

### ENG 362 Poetry: A Survey

Carper

A study of representative English and American poets in major periods from Chaucer's to our own. (Fall, annually)

Three credit hours

### 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.

Three credit hours

### 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, 1974)

Three credit hours

### ENG 410 Independent Study in English

Staff

Individual study programs as arranged with an instructor. Prerequisite: permission of instructor.

One to three credit hours

### 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.

Three credit hours

### CPEN 298 Great Continental Novelists

Hanna

A study and interpretation of eight representative works of European fiction and of underlying literary and historical trends. Students will read four French and four Russian novels: Stendhal, *The Red and the Black*; Balzac, *Pere Goriot*; Gogol, *Dead Souls*; Flaubert, *Madame Bovary*; Turgenev, *Fathers and Sons*; Dostoevsky, *Crime and Punishment*; Tolstoy, *Anna Karenina*; and Zola, *L'Assommoir*. Oral reports, class discussion, short critical papers.

Three credit hours



**CPEN 372 Greek Epic, Tragedy, Comedy****Hanna**

Homer's *Iliad* and *Odyssey*; heroic poetry as a reflection of Aegean civilization, of arms and the man, of myth and legend, of social, economic, and literary values. Fifteen tragedies by Aeschylus, Sophocles, and Euripides — their origin and development, staging and production, structure and technique; Aristotle's *Poetics* and components of tragedy; three comedies by Aristophanes — their structure, thought, tone, and style; Virgil's *Aeneid* and its indebtedness to Homeric tradition. Oral reports, class discussions, short critical papers. (Fall, even years) Three credit hours

**CPEN 487 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. (Fall, even years) Three credit hours

**CPEN 488 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. (Fall, 1974) Three credit hours

NOTE: Up to six hours of specific courses offered by such other Liberal Arts departments as Foreign Languages and Classics, History, Theatre/Communications, etc., 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, 1975) Three credit hours

**ENG 223 Medieval Literature****Staff**

Extensive readings in major philosophical background texts and the literature of 14th century England exclusive of Chaucer. (Fall, even years) Three credit hours

**ENG 224 Chaucer****Burke, Reuter, Weeks**

Selections from the major poetry, with attention to the literary and historical background. (Every semester) Three credit hours

**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. (Annually, spring) Three credit hours

**ENG 232 Spenser****Bernard**

Readings in the works of Edmund Spenser with special emphasis on *The Faerie Queene*. Three credit hours

**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) Three credit hours

**ENG 243 Shakespeare II****Vincent**

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

**ENG 244 Shakespeare Special Studies****Reuter**A study of allegorical elements in selected plays. (Annually, fall) **Three credit hours****ENG 246 British Drama to 1642****Bernard, Reuter**Shakespeare's predecessors, contemporaries, and followers to 1642. (Annually, fall)  
**Three credit hours****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, Waller, Traherne. (Annually, fall)  
**Three credit hours****ENG 250 Milton****Baier, Reuter**Study of Milton's major poetry and selected prose with attention to critical and historical background. (Spring, 1974; Fall, 1974; Spring, 1975) **Three credit hours****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, Gray, Addison, and Steele (Annually, fall)  
**Three credit hours****ENG 263 Later 18th Century Prose and Poetry****Carper, Selkin, Weeks**Johnson and Boswell and their circle, poetry from Smart and Collins to Burns and Blake, and other works of the period. (Annually, spring) **Three credit hours****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, 1974) **Three credit hours****ENG 266 Restoration Drama****Reuter**A study of Restoration and early 18th Century drama with emphasis on innovations in the post-Elizabethan theatre and on changing definitions of the tragic and comic hero. Playwrights studied will include Davenant, Dryden, Otway, Etherege, Shadwell, Cibber, Wycherley, Congreve, Farquhar. (Fall, odd years) **Three credit hours****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. (Annually, spring)  
**Three credit hours****ENG 268 The Earlier English Novel****Bernard, Selkin**The principal novelists from the beginnings to Sir Walter Scott. (Fall, 1973; Spring and Fall, 1974) **Three credit hours****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, odd years) **Three credit hours**

**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, odd years) Three credit hours

**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. (Annually, spring) Three credit hours

**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. (Annually, fall) Three credit hours

**ENG 286 Fiction of the Romantic Period**

Carner

The novels of Jane Austen; readings in Maturin, Peacock, Edgeworth, Lewis, Godwin, Mary Shelley, Scott. (Spring, 1974) Three credit hours

**ENG 291 Victorian Prose and Poetry**

Hanna

Intensive reading in the poetry of Tennyson, Browning, and Arnold, together with representative selections from Clough, the Rossettis, Meredith, and such late transitional figures as Hopkins, Hardy, and Housman. The critical and controversial prose of Carlyle, Ruskin, Arnold, Huxley, Newman, Mill, Morris, and Pater. Background reading in the cultural conflicts of the Industrial Revolution: Utilitarianism, the science-religion debate, the poetry of alienation. Special projects in the literary use of myth and symbol, the decline of tragedy, and "the Victorian compromise." Oral reports and short critiques. (Fall, odd years) Three credit hours

**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. Three credit hours

**ENG 296 Tennyson and Browning**

Hanna

A wide-ranging investigation of the poetry of two major Victorian figures, Tennyson and Browning, who contrast dramatically as spokesmen for the nineteenth-century Englishman's inner and outer world. A paradox closely examined: despite the universal appeal of both poets, they share little in technique, "voice," and philosophy. Answers may be sought in a close reading of the poems chronologically arranged, and in the various cultural conflicts of the Industrial Revolution: Utilitarianism, the science-religion debate, artistic alienation. Special projects will be assigned on such topics as the poets' uses of myth and symbol, the decline of tragedy in an age of disbelief, and "the Victorian compromise." Oral reports and short critiques. Three credit hours

**ENG 297 The Later English Novel**

Bernard, Hanna

The principal novelists from Austen to Hardy. (Spring, 1974)

Three credit hours

**VII – AMERICAN LITERATURE: Colonial to 1900****ENG 342 American Literature I**

Jaques

American literature through the 18th and 19th centuries, with emphasis on the principal writers. (Fall, odd years) Three credit hours

**ENG 344 The American Renaissance**

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)

Three credit hours

**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. (Annually, fall)

Three credit hours

**ENG 348 The American Novel I**

Burke, Slavick

A study of the American novel from Charles Brockton Brown to Henry James. (Annually, fall)

Three credit hours

**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. (Annually, spring)

Three credit hours

**ENG 358 Whitman, Twain, and James**

Slavick

A study of representative works of three major American writers of the last half of the 19th century. (Fall, odd years)

Three credit hours

**VIII – MODERN LITERATURE: 1900 to the Present****ENG 302 20th Century British and American Poetry I**

Lewisohn, 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)

Three credit hours

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

Lewisohn, O'Reilly

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

Three credit hours

**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 (reports).

Three credit hours

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

Hanna

A first trip, unencumbered by scholarly and critical baggage, into the immense Joycean world. Movement through the three major works will be empirical and inductive. Sights, smells, sounds – all modes of perception will be heightened and clarified through class discussion of Joyce's ends and his seemingly inexhaustible means. Except for a side trip now and then into the abstruse or arcane, guidelines will be simple. To satisfy intellectual curiosity and enrich class discussion, each participant will be solely responsible for only one critical commentary selected from among Joyce's twenty leading expositors. Regular oral reports; six short critiques. Prerequisite: previous reading of *Dubliners* or *Portrait of the Artist as a Young Man*. (Fall, 1973; Spring, 1975)

Three credit hours

**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. Three credit hours

**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, fall 1974) Three credit hours

**ENG 309 The Southern Renaissance****Slavick**

The post-World War I flowering in Southern letters: The Fugitive poets and the fiction of Heyward, Wolfe, Faulkner, Elizabeth Madox Roberts, Tate, Gordon, Porter, Agee, Warren, Welty, McCullers, Flannery O'Connor, and Walker Percy. (Fall, 1973) Three credit hours

**ENG 310 The Fugitive Poets****Burke**

Studies in the poetry of the Southern Renaissance. (Spring, 1975) Three credit hours

**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. Three credit hours

**ENG 313 Southern Short Story****Slavick**

Readings in 19th century short fiction from Poe to Page and the 20th century: Wolfe, Faulkner, Porter, Wright, Warren, Welty, Gordon, McCullers, Peter Taylor, and Flannery O'Connor. (Spring, 1974) Three credit hours

**ENG 326 Fitzgerald, Hemingway, Faulkner****Slavick**

Studies in the fiction of three 20th century American writers. (Spring, 1974) Three credit hours

**ENG 343 American Literature II****Jaques**

A continuation of American Literature I. (Spring, 1974) Three credit hours

**ENG 349 The American Novel II****Burke, Slavick**

A study of the American novel from 1900 to the present. (Spring, 1975) Three credit hours

## **IX — EXPERIMENTAL COURSES**

Occasionally the English Department will offer special courses not listed individually in the catalog but listed and described (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 approaches to literature, testing new alignments of figures or materials, or trying out courses before installing them permanently in the catalog.

# Foreign Languages and Classics

Associate Professors Clark, Crochet, Dalvet, Duclos, Lepelley; Assistant Professors Carroll, Di Benedetto, Rolfe (Chairman), Ubans; Instructor Hernandez.

## 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.

## 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 (204-205) 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 203. 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 204 and 205. 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. These general requirements are printed inside the front cover of this catalog.

## VI. FRENCH MAJOR AND MINOR FOR STUDENTS IN THE SCHOOL 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:

		<i>Credit Hours</i>
FRE 201 and 202	Composition and Conversation	6
FRE 231 or 232	Introduction to French Literature	3
FRE 203	Phonetics	3
FRE 251 or 252	French Civilization	3
FRE 401 or 402	Advanced French Grammar	3
		<hr/>
		18 hours

Elective courses:

Literature courses on the 300 level

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 Intermediate French.)

Required courses:

FRE 201 and 202	Composition and Conversation	6
FRE 231	Introduction to French Literature	3
		<hr/>
		9 hours

Elective courses:

FRE 203 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. (Not offered in 1973-74)

Three credit hours

**CLS 252 The Tragic Hero in Ancient Literature**

Duclos

Intensive reading of selected plays in English translation by Aeschylus, Sophocles, Euripides, Seneca; discussion; papers. (Not offered in 1973-74)

Three credit hours

**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.

Three credit hours

**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. (Not offered in 1973-74)

Three credit hours

**CLS 257 Greek Tragedy in Translation: Philosophy or Politics?**

Carroll

This course will examine a selection of Greek Tragedies in English translation from a literary, philosophical, and historical point of view. It will involve 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, hopefully to enhance understandings of Classical drama and to demonstrate the "Classical elements" in contemporary forms. (Not offered in 1973-74)

Three credit hours

**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. (Not offered in 1973-74)

Three credit hours

**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.

Three credit hours

**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.

Three credit hours

**FRE 262 Masterpieces of French Literature in English Translation II**

Dalvet

Novels and plays representative of French Literature from the Middle Ages to the end of the 18th century. No knowledge of French is necessary (Not offered in 1973-74)

Three credit hours

**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. (Not offered in 1973-74)

Three credit hours

**FRE 264 Avant Garde Theatre in France (in English Translation)**

Staff

Study of plays and theoretical texts in English translation from Jarry to Beckett. No knowledge of French is necessary. (Not offered in 1973-74)

Three credit hours

**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.

Three credit hours

**CLASSICS: GREEK AND LATIN**

**GRK 101 Elementary Greek I**

Duclos

Fundamentals of classical Greek. Emphasis upon acquisition of reading knowledge. (Not offered in 1973-74)

Three credit hours

**GRK 102 Elementary Greek II**

Duclos

Selections from Euripides' *Alcestis*. Prerequisite: GRK 101. (Not offered in 1973-74)

Three credit hours

**GRK 201 Intermediate Greek I**

Duclos

A study of Plato's *Apology*, *Crito* and selections from the *Phaedo*. Prerequisite: GRK 101 or equivalent.

Three credit hours



<b>GRK 202 Intermediate Greek II</b>	Carroll
A study of selected books from Homer's <i>Odyssey</i> .	Three credit hours
<b>LAT 101 Elementary Latin I</b>	Duclos
Fundamentals of the Latin language. (Not offered in 1973-74)	Three credit hours
<b>LAT 102 Elementary Latin II</b>	Duclos
Continuation of LAT 101. (Not offered in 1973-74)	Three credit hours
<b>LAT 201 Intermediate Latin I</b>	Duclos
Selected readings from masters of Latin prose and poetry. Prerequisite: LAT 101 or equivalent.	Three credit hours
<b>LAT 202 Intermediate Latin II</b>	Staff
Continuation of LAT 201.	Three credit hours
<b>LAT 231 Readings in Latin Literature I</b>	Duclos
Readings in the prose and poetry of the late Republic and Early Empire, with emphasis upon literary values. (Not offered in 1973-74)	Three credit hours
<b>LAT 232 Readings in Latin Literature II</b>	Duclos
Continuation of LAT 231. (Not offered in 1973-74)	Three credit hours

## FRENCH

<b>FRE 101 Beginning French I</b>	Di Benedetto
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). Three credit hours. (With lab, four credit hours.)	
<b>FRE 102 Beginning French II</b>	Di Benedetto
Continuation of FRE 101. Three credit hours. (With lab, four credit hours.)	
<b>FRE 103 Review of Elementary French</b>	Crochet
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). Three credit hours. (With lab, four credit hours.)	
<b>FRE 111 Reading French</b>	Dalvet
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. Three credit hours	
<b>FRE 112 Readings in French</b>	Dalvet
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. Three credit hours	
<b>FRE 131 Intermediate French I</b>	Crochet, Lepelley
Development of the language skills through an analysis of contemporary texts: Camus, Sartre, Anouilh, or others. Students are encouraged to register also for laboratory practice (one more credit). Prerequisite: FRE 102, FRE 103, or equivalent. Three credit hours. (With lab, four credit hours.)	
<b>FRE 132 Intermediate French II</b>	Crochet, Lepelley
Continuation of FRE 131. Three credit hours. (With lab, four credit hours.)	

**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.

**Three credit hours****FRE 201 French Composition****Crochet, Di Benedetto**

Advanced study of the French language based on grammatical review, regular compositions, some translation and vocabulary analysis.

**Three credit hours****FRE 202 French Conversation****Rolfe**

Intensive oral practice, expository reports, debates, class discussions. Prerequisite: FRE 132.

**Three credit hours****FRE 203 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.

**Three credit hours****FRE 204 The Practice of Conversation I****Rolfe**

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 202 or equivalent.

**One credit hour per semester****FRE 205 The Practice of Conversation II****Rolfe**

Continuation of FRE 204.

**One credit hour per semester****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.

**Three credit hours****FRE 232 Introduction to French Literature II****Dalvet**

Continuation of FRE 231.

**Three credit hours****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. (Offered in 1973-74 only by the Continuing Education Division.)

**Three credit hours****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. (Not offered in 1973-74)

**Three credit hours****FRE 303 French Theatre in the Twentieth Century****Staff**

Plays by Giraudoux, Cocteau, Anouilh, Sartre, Genet, Ionesco, and others. Prerequisite: FRE 231.

**Three credit hours****FRE 321 Drama and Poetry from Romanticism to Symbolism****Lepelley**

Lectures, readings, and discussion of plays and poetry by Hugo, Musset, Vigny, Baude-  
laire, Verlaine, Mallarmé, Rimbaud, and other representative authors. Prerequisite: FRE 231. (Not offered in 1973-74)

**Three credit hours****FRE 325 The XIXth Century Novel: Balzac and Stendhal****Dalvet**

Representative novels and short stories of Balzac, Stendhal, and contemporaries. Prerequisite: FRE 231.

**Three credit hours**

- FRE 326 The Nineteenth Century French Novel: Flaubert and Zola** Crochet  
Representative novels of Flaubert, Zola, and contemporaries. Prerequisite: FRE 231.  
Three credit hours
- 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 321.  
Three credit hours
- FRE 332 The XVIIIth Century French Novel** Di Benedetto  
Readings from Prevost, Marivaux, Rousseau, Laclos, and others. Prerequisite: FRE 321.  
(Not offered in 1973-74) Three credit hours
- FRE 335 French Literature of the 17th Century until 1660** Crochet  
Readings from Malherbe, Scarron, Descartes, Pascal, Corneille. Prerequisite: FRE 231.  
(Not offered in 1973-74) Three credit hours
- FRE 336 French Literature of the 17th Century: the Apogee of the Classical Age** Di Benedetto  
Readings from Mme. de la Fayette, Moliere, Racine, La Fontaine, La Bruyere, Boileau.  
Prerequisite: FRE 231. (Not offered in 1973-74) Three credit hours
- FRE 345 French Literature of the Medieval Period** Lepelley  
*Chansons de Geste, Romans courtois*; theatre, lyric, poetry. In modern French translation.  
Prerequisite: FRE 231. Three credit hours
- 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. Three credit hours
- FRE 401 Advanced French Grammar I** Clark  
Designed to provide prospective teachers with an adequate foundation in French grammar. Prerequisite: FRE 202. Three credit hours
- FRE 402 Advanced French Grammar II** Clark  
Continuation of FRE 401. Three credit hours

### 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.  
Three credit hours

### GERMAN

- GMN 101 Elementary German I** Ubans  
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). Three credit hours. (With lab, four credit hours.)
- GMN 102 Elementary German II** Ubans  
Continuation of GMN 101. Three credit hours. (With lab, four credit hours.)
- GMN 103 Review of Elementary German** Ubans  
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). Three credit hours. (With lab, four credit hours.)
- GMN 111 Reading German I** Schwanauer  
Beginner's course in German aiming exclusively at a reading knowledge of the language. No German spoken. Recommended also as preparation for language tests required by graduate schools. Three credit hours
- GMN 112 Reading German II** Staff  
Continuation of GMN 111. Three credit hours

**GMN 131 Intermediate German I**

Schwanauer

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.  
Three credit hours. (With lab, four credit hours.)

**GMN 132 Intermediate German II**

Staff

Continuation of GMN 131. Three credit hours. (With lab, four credit hours.)

**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 104 or equivalent. (Not offered in 1973-74)  
Three credit hours

**GMN 202 Composition and Conversation in German II**

Ubans

Continuation of GMN 201. (Not offered in 1973-74) Three credit hours

**GMN 321 Introduction to German Literature I**

Ubans

Reading and discussion of selected works representing the major literary movements from Enlightenment to Realism. (In Fall, 1973, the class discussions will be in English.) Prerequisite: GMN 132 or GMN 112 or an equivalent reading ability of German. (Offered in 1973-74 only in the Continuing Education Division)  
Three credit hours

**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. (Offered in 1973-74 only in the Continuing Education Division)  
Three credit hours

**SPANISH****SPN 101 Elementary Spanish I**

Clark

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).  
Three credit hours. (With lab, four credit hours.)

**SPN 102 Elementary Spanish II**

Clark

Continuation of SPN 101. Three credit hours. (With lab, four credit hours.)

**SPN 103 Review of Elementary Spanish**

Clark

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).  
Three credit hours. (With lab, four credit hours.)

**SPN 131 Intermediate Spanish I**

Hernandez

For students who have completed SPN 101 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.  
Three credit hours. (With lab, four credit hours.)

**SPN 132 Intermediate Spanish II**

Hernandez

Continuation of SPN 131. Three credit hours. (With lab, four credit hours.)

**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. (Not offered in 1973-74)  
Three credit hours

**SPN 202 Composition and Conversation in Spanish II**

Hernandez

Continuation of SPN 201. (Not offered in 1973-74) Three credit hours

**SPN 231 Readings in Spanish Literature I**

Hernandez

A survey of the important periods and trends in Spanish literature with reading of representative works. Prerequisite: SPN 132.  
Three credit hours

**SPN 232 Readings in Spanish Literature II**

Hernandez

Continuation of SPN 231. Three credit hours

# Geography-Anthropology

Associate Professor Hodges (Chairman); Assistant Professor French (Director of Museum of Man); Instructor in Anthropology Tizon.

The Department of Geography-Anthropology does not offer a major program leading to a degree in the College of Liberal Arts. It does, however, offer a 24-hour concentration of geography courses as part of one of the three alternative programs providing a 51-hour Social Science Area Major for Secondary Education students in the School of Education. The details of all three programs, the first offering a concentration in Geography, the second offering a concentration in History, and the third offering a concentration in Economics, are listed below.

The Department of Geography-Anthropology also offers an 18-hour Minor in Geography for all students in the School of Education, including Kindergarten-Primary, Elementary, and Secondary Education Majors.

Secondary Education students with majors or specific discipline minors in the Social Sciences must achieve at least 6 credits with grades of B or better in such major or minor requirements. No grades of D will count toward fulfillment of the major or minor requirements. No required course may be repeated more than once.

All students are reminded that, in addition to their meeting departmental requirements for a major leading to a baccalaureate degree, they must also meet the requirements of the school or college involved, as well as the University's General Education Requirements. These general requirements are printed inside the front cover of this catalog.

## SOCIAL SCIENCES AREA MAJOR 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	
	or		
HIST	133-134	U. S. History	6
SOC	101	Introduction to Sociology	3
POL	101	Introduction to American Government	3
ANY	101	Cultural Anthropology	
	or		
ANY	102	Physical Anthropology	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
GEOG	101	Principles of Geography	3
GEOG	201	World 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 Principles of Geography	3
At least one course in regional geography from:	
GEOG 201 World Geography	
GEOG 310 Geography of Asia	3
GEOG 311 Geography of North America	
12 hours of electives from the remaining geography courses	12
<b>TOTAL REQUIREMENTS FOR A MINOR IN GEOGRAPHY</b>	<b>18</b>

## OTHER OPTIONS

Students in the School 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

### 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	
or	
HIST 133-134 U. S. History	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 Principles of Geography	
GEOG 201 World Geography	
ANY 101 Cultural Anthropology	
ANY 102 Physical Anthropology	6
<b>SUBTOTAL OF SPECIFICALLY REQUIRED COURSES</b>	<b>42</b>

## ELECTIVES

A minimum of 9 credit hours in any HIST, SOC, POL, ANY, ECON, GEOG courses

<b>TOTAL REQUIREMENTS IN THE SOCIAL SCIENCES</b>	<b>51</b>
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## 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	U.S. History to 1900; U.S. History since 1900		6
GEOG 101	Principles of Geography		3
SOC 101	Intro. to Sociology		3
POL 101	Introduction to American Government		3
ANY 101	Cultural Anthropology		3
ECON 101 & 102	Principles of Economics		6
ECON 350	Comparative Economic Systems		3
ECON 201	Current Economic Problems		3
EC ED 300	Economic Concepts and Resource Materials for Educators		3
Additional Electives from Economics			12
<b>TOTAL REQUIREMENTS IN THE SOCIAL SCIENCES</b>			<b>51</b>

(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.

## COURSE DESCRIPTIONS

### Anthropology

#### ANY 101 Cultural Anthropology

Tizon

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. (Offered every fall)

Three credit hours

#### ANY 102 Physical Anthropology

Tizon

Physical Anthropology; a look at the theories of human evolution, fossil man, the mechanisms of inheritance and natural selection; a discussion and evaluation of the concept of race; primate behavior and what it tells us about our ancestors, the relationship between biology and culture in man's evolution. (Offered every spring)

Three credit hours

#### ANY 201 South American Culture History

Tizon

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)

Three credit hours

#### ANY 300 Independent Study in Anthropology

Staff

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****Tizon**

This course reviews the factors involved in different types of culture change (e.g., acculturation, autonomous "evolution"), typologies of culture-contact situations, 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. (Offered every spring)

Three credit hours

**ANY 310 Latin American Cultural Ecology****Tizon**

An examination of the relationship between culture and environment in Latin America; presentation of current controversy in cultural-ecological theory as it relates to Latin America, with particular emphasis on the tropical forest zone; comparison of land-use patterns, as well as perceptions of space and land; environment viewed as involving other cultures as well as physical surroundings. Prerequisite: ANY 101 or 102 or permission. (Offered every other spring)

Three credit hours

**ANY 314 Magic, Religion, and Witchcraft****Tizon**

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; parapsychological studies and problems. Prerequisite: ANY 101 or 102 or permission. (Offered every fall)

Three credit hours

**ANY 402 The History of Anthropology****Tizon**

This course traces the development of the field of anthropology from its early roots in philosophy, through its popularism with the discovery of the New World, to present-day schools of thought. The course deals with such questions as whether or not anthropology can be considered a science, if it is a legitimate pursuit or merely a piecing together of other social sciences, and what are the ultimate goals of the discipline. The course is primarily designed for students who are contemplating graduate work in anthropology, and will focus on the critical analysis of anthropological approaches and the definition of the student's own goals in anthropology. Prerequisites: ANY 101 plus 3 hours ANY over 100 level. (Offered every other year)

Three credit hours

**ANY 412 Methods of Anthropological Investigation****Tizon**

This course covers the range of methods used by anthropologists in their studies. The focus is on ethnology and field work although archaeological techniques are reviewed. Attention will be paid to the role of the ethnologist during fieldwork, a much-neglected factor in the analysis of data. Students will be expected to become proficient in one or more investigative techniques during the course and sensitive to the kinds of problem which might arise in field situations. This course is recommended for those who plan to continue studies in cultural and physical anthropology, or archaeology. Prerequisite: ANY 101, 102 plus 3 hours ANY over 100 level. (Offered every other year)

Three credit hours

## **Geography**

**GEOG 101 Principles of Geography****French, Hodges**

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 all advanced courses in geography. (Offered every semester)

Three credit hours

**GEOG 105 The Local Environment****French**

This is a field oriented course that deals with the application of fundamental geographic concepts in the interpretation of areal development. The local area serves as the "laboratory" and provides models of geographic interaction that have application on a broader scale. (Offered only in summer sessions)

Three credit hours



**GEOG 201 World Geography**

French

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 occupancy. 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) Three credit hours

**GEOG 221 Spatial Organization**

French

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. (Offered fall 1973)

Three credit hours

**GEOG 300 Independent Study in Geography**

Staff

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 departmental approval. Variable credits will be offered.

**GEOG 301 Geomorphology (cross-listed with GEOL 301)**

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)

Three credit hours

**GEOG 302 Urban Geography**

Hodges

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 alternate springs)

Three credit hours

**GEOG 303 Economic Geography**

Hodges

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 alternate falls)

Three credit hours

**GEOG 304 Political Geography**

Hodges

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 alternate falls)

Three credit hours

**GEOG 310 Geography of Asia**

Hodges

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 alternate springs)

Three credit hours

**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. (Offered alternate falls)

Three credit hours

# History

Professors Cole, Emerson, Hunt, York, Young; Associate Professors Albee, Bibber, Connick, Dietrich, Feig, Schleh (Chairman), Whitmore; Assistant Professors Eastman, Ventresco; Instructor Padula.

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.

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.

## 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 or HIST 133-134 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 Elementary Education or Kindergarten-Primary Education in the School 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 or HIST 133-134 are required courses in either the academic major or academic minor program.

## LIBERAL ARTS OR SECONDARY EDUCATION REQUIREMENTS FOR HISTORY MAJORS

	<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
Choice of one of the two-semester sequences in U.S. History listed below, each offering 3 credits each semester	6
HIST 131 and 132 U.S. History to 1877 and U.S. History from 1877	
or	
HIST 133 and 134 American Society and Culture: Colonial Times to the Industrial Revolution and American Society and Culture: Modern Times	
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	
or	
HIST 171 and 172 Traditional East Asia and Modern East Asia	
or	
HIST 181 and 182 Latin America I and II	
HIST 200 Methodology in History (To be taken in the sophomore year or during the first semester after declaring a history major.)	3
Other History Courses	18
Minimum Total to Meet Major Requirements	<hr/> 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.

### COURSE DESCRIPTIONS

#### HIST 101 Western Civilization I

Staff

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.

Three credit hours

#### HIST 102 Western Civilization II

Staff

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.

Three credit hours

**\*HIST 131 United States History to 1877**

Staff

A basic survey and introduction to the field of American history, covering the political, social, and economic development of the United States through Reconstruction.

Three credit hours

**\*HIST 132 United States History Since 1877**

Staff

The course is a continuation of HIST 131. A survey of American political, social, and economic development since about 1877.

Three credit hours

**\*HIST 133 American Society and Culture: Colonial Times to the Industrial Revolution**

Staff

A team-taught survey of United States history which examines institutional development and change in major areas of American society and culture by means of lecture case studies, a variety of paperbound readings, films, slides, music, and small group discussion.

Three credit hours

**\*HIST 134 American Society and Culture: Modern Times**

Staff

A continuation of HIST 133 which examines institutional change and development in modern American urban industrial society and culture.

Three credit hours

\*HIST 131-132 and HIST 133-134 are both introductory courses, though class procedures differ. Credit will be given for one or the other, not both (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.

Three credit hours

**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.

Three credit hours

**HIST 171 Traditional East Asia**

Bibber

The history and culture of China and Japan from earliest times to about 1700, with emphasis on the composition of the "traditional" societies.

Three credit hours

**HIST 172 Modern East Asia**

Bibber

China and Japan since about 1700, emphasizing contrasting moves toward modernization in two traditional societies.

Three credit hours

**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.

Three credit hours

**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.

Three credit hours

**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. Prerequisite: six hours of history. (Offered both Fall and Spring semesters in Day sessions; offered in CED only in the Spring semester.)

Three credit hours

**HIST 231 Ancient History I**

Staff

The political, social, and economic history of the civilizations of the ancient Mediterranean world, with Egypt, the Near East, and Greece being studied. (Not offered in 1973-74)  
Three credit hours

**HIST 232 Ancient History II**

Staff

A continuation of HIST 231 concentrating upon an examination of ancient Rome. (Not offered in 1973-74)  
Three credit hours

**HIST 235 Medieval Civilization I**

Cole

Europe from late antiquity through the Carolingian Empire, Islamic Empire, Byzantium Empire and the origin, development, and structure of feudalism. (Not offered in 1973-74)  
Three credit hours

**HIST 236 Medieval Civilization II**

Cole

Europe through the Crusades; the medieval church and state; medieval theology and philosophy and the coming of the Renaissance and Reformation. (Not offered in 1973-74)  
Three credit hours

**HIST 241 Early Modern Europe**

Ventresco

A political, social, and intellectual study of Europe from the era of Martin Luther to the age of Sir Isaac Newton. One of the major themes of this course is the development of the state, and the rise of the great powers within the broader context of international struggles. Prerequisite: six hours of history.  
Three credit hours

**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, the influence of the American Revolution, 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.  
Three credit hours

**HIST 243 Europe in the Nineteenth Century**

Ventresco

An intensive survey of the history of Europe's major powers and their international relations. Major topics also included are liberalism, socialism, and imperialism. Intellectual and cultural developments are stressed. Prerequisite: HIST 102.  
Three credit hours

**HIST 244 Twentieth Century Europe I**

Albee, Ventresco, Young

A study of European society from the turn of the century through the aftermath of World War I. Particular attention will be given to industrialization, urbanization, imperialism, and nationalism, as well as to the approach of world war and the war's consequences. Prerequisite: HIST 102.  
Three credit hours

**HIST 245 Twentieth Century Europe II**

Albee, Ventresco, Young

An intensive survey of European developments in the twentieth century stressing intellectual, economic, psychological, social, and political factors. Europe's changing role; the impact of World Wars I and II; the meaning of Facism, Nazism, and Soviet Communism; and problems facing Europe in today's world are considered. Prerequisite: HIST 102.  
Three credit hours

**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.  
Three credit hours

**HIST 263 England in the 20th Century****Albee**

A study including the Edwardian Age, The Liberal Party's decline and the Labour Party's rise, the Depression, the English people in two World Wars, the transition from Empire to Commonwealth, the problem of Ireland, and the leadership of Lloyd George and Churchill.

Three credit hours

**HIST 265 Modern Italy 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.

Three credit hours

**HIST 266 Modern Italy II****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, Sveve, Levi, and Moravia will be examined; as well as Italian historical writings. Prerequisites: HIST 101 and HIST 102.

Three credit hours

**HIST 271 German History, 1648-1900****Albee**

A study of the German people from the Thirty Years' War until the twentieth century. Particular attention will be given to the rise of Prussia as a rival to Austria, to life in the Germanies during the Enlightenment, and to the romanticism, liberalism, and nationalism of the nineteenth century. Prerequisite: HIST 102.

Three credit hours

**HIST 272 Germany in the 20th Century****Albee, 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.

Three credit hours

**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.

Three credit hours

**HIST 275 History of Russia I****Young**

Political, social, cultural, and economic history of the Russian people to 1801. Surveys geographic backgrounds, the influence of Byzantine civilization, the impact of invasions, and the development of Russia's unique social, cultural, and political institutions through the reign of Catherine the Great. Prerequisite: one survey or permission.

Three credit hours

**HIST 276 History of Russia II****Young**

A continuation of Russian history from 1801 to today. The course deals with 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 survey or permission.

Three credit hours

**HIST 295 History of Canada I****Staff**

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. Prerequisite: Sophomore Status.

Three credit hours

**HIST 296 History of Canada II****Staff**

Canada's history since 1867. Continuation of HIST 295. Prerequisite: Sophomore Status.

Three credit hours

**HIST 301 American Colonial History****Staff**

Half the semester is devoted to discovery, exploration, and colonization. New Spain, New France, New Netherland, and New Sweden are compared with the English settlements (13 colonies), each of which is considered in detail. Second half of semester emphasizes social and intellectual topics (e.g. - religion, law, medicine, painting, literature, and music). Prerequisite: HIST 131 or 133. Three credit hours

**HIST 302 The American Revolution****Staff**

The Anglo-French conflict, the series of inter-colonial wars, and the "Old Imperial System" are considered as background to the American Revolution. Subsequently, the period 1763-1789 is treated in detail, including leading personalities, military campaigns, social aspects of the war, and the Constitution (origins, constitutional convention and ratification). Historiography of the period is emphasized. Prerequisites: HIST 131 and 132 or HIST 133 and 134. Three credit hours

**HIST 305 Hamilton and Jefferson****Staff**

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 and 132, or HIST 133 and 134, or permission. Three credit hours

**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 and 132, or permission. Three credit hours

**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 or 133. Three credit hours

**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 133 or permission. Three credit hours

**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 or 134. Three credit hours

**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 134 or permission. Three credit hours

**HIST 321 History of Maine****York**

A survey of Maine's social, economic, and political life from primitive times to the present. Three credit hours

**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 or HIST 133 and 134. (Not offered in 1973-74) Three credit hours

**HIST 325 History of the American Frontier**

Staff

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 HIST 133 and 134, or permission. Three credit hours

**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 HIST 133, or permission. Three credit hours

**HIST 335 American Urban History**

Whitmore

The American city is surveyed in regard to the 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 or 133. Three credit hours

**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 HIST 133, or permission. Three credit hours

**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 HIST 133 and 134, or permission. Three credit hours

**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 HIST 134, or permission. Three credit hours

**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. (Not offered in 1973-74) Three credit hours

**HIST 342 American Social and Intellectual History II**

Emerson, Whitmore

A continuation of HIST 341 from 1865 to the present. (Not offered in 1973-74)

Three credit hours

**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 or HIST 133.

Three credit hours



**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 or HIST 134. Three credit hours

**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 HIST 133, or permission. Three credit hours

**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. (Not offered in 1973-74) Three credit hours

**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 HIST 133 and 134, or permission. Three credit hours

**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. (Not offered in 1973-74) Three credit hours

**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. (Not offered in 1973-74) Three credit hours

**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 or HIST 133 and 134. HIST 172 strongly recommended. (Not offered in 1973-74) Three credit hours

**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. (Not offered in 1973-74) Three credit hours

**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. (Not offered in 1973-74) Three credit hours

**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. (Not offered in 1973-74) Three credit hours

**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. (Not offered in 1973-74)

Three credit hours

**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.

Three credit hours

**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.

Three credit hours

**HIST 392 Problems in Contemporary History****Staff**

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. (Not offered in 1973-74)

Three credit hours

**HIST 394 Selected Topics in History****Staff**

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.

Three credit hours

**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.

Three credit hours

**HIST 415 Recent Literature in European History****Staff**

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.

Three credit hours

**HIST 445 Recent Literature in United States History****Staff**

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. (Not offered in 1973-74)

Three credit hours

**HIST 495 Historiography****Staff**

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. (Not offered in 1973-74)

Three credit hours

**HIST 498 Independent Study in History****Staff**

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.

One to three credit hours

# Mathematics

Professors Estes, Fish (Chairman), P. Rogers; Associate Professors Brown, Guay, Kratzer, Mainville,\* Moulton; Assistant Professors Bruckner, Chabot, Foster, Irish, MacDonald, Soychak; Instructors Bradbard (on leave 1973-74), Murley.

A four-year program leading to a baccalaureate degree in mathematics is offered, as well as offerings to meet the requirements of a number of undergraduate and graduate programs.

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. These general requirements are printed inside the front cover of this catalog.

## I. REQUIREMENTS FOR THE MATHEMATICS MAJOR

- A. Successful completion of the Calculus sequence (MS 150, 151, 250, 251) and Foundations (MS 290).
- B. 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 355 Complex Analysis  
MS 352 Real Analysis  
MS 354 Topics in Advanced Calculus
  3. Applied Mathematics: MS 360 Computer Programming  
MS 362 Probability Theory  
MS 368 Numerical Analysis
  4. Geometry: MS 370 College Geometry  
MS 372 Non-Euclidean Geometry  
MS 371 Projective Geometry

Any changes in the above categories must be approved by the department.
- C. Successful completion of at least 39 hours of approved mathematics courses. Approved courses are generally considered to be ones in which the second digit is 5 or greater.
- D. A student must have a minimum major average of 2.0 before being considered for a baccalaureate degree in mathematics.

## II. RECOMMENDATIONS FOR MATHEMATICS MAJORS

- A. Students who are considering majoring in mathematics should complete MS 150 and MS 151 in their freshman year and MS 290 by the end of their sophomore year.

- B. Mathematics majors intending to pursue graduate work are urged to take Real Analysis I and II, Abstract Algebra, Topology, and one year of French, German, or Russian.
- C. Mathematics majors intending to enter industry are advised to take Computer Programming, Statistics, Differential Equations, and Numerical Analysis. It is also suggested that such majors consider minoring in a quantitative field such as Physics, Economics, Engineering, etc.
- D. Mathematics majors intending to teach at the secondary level should have a minor in another field. They are urged to take Computer Programming, Abstract Algebra, College Geometry, Probability Theory and Mathematical Statistics, and the appropriate education requirements.

### **III. REQUIREMENTS FOR MATHEMATICS MINORS AND EDUCATION MAJORS**

- A. A minor in mathematics may be obtained by the successful completion of 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 132, and eight 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 132 and four elective three-credit-hour mathematics courses with MS code numbers of 120 or above.

### **IV. RECOMMENDATIONS FOR A MATHEMATICS CONCENTRATION FOR NON-MAJORS**

For students majoring in other disciplines but wishing to develop competency in using mathematics, the following concentration is recommended:

- MS 109 Linear Systems
- MS 110 Elementary Mathematical Analysis (or MS 150 and MS 151 for greater depth in Calculus)
- MS 116 An Introduction to Computer Systems (or MS 160 for greater depth in Computer Programming)
- MS 120 Statistical Inference (or MS 211 and MS 212 for greater depth in probability and statistics)
- MS 364 Statistical Methods for Research

Since this concentration is an elective program, students may take several or all of the recommended courses. Individual course descriptions should be consulted to determine prerequisites.

## COURSE DESCRIPTIONS

### **MS 10 Mathematical Analysis for Business Decisions I**

Staff

The traditional topics of elementary mathematics are included to acquaint the student with their uses as tools which can be applied to solving problems of a business decision-making nature. Topics covered include integers, real numbers, number systems, set theory and complex numbers. Restricted to Associate Degree Program students.

Three credit hours

### **MS 11 Mathematical Analysis for Business Decisions II**

Staff

A continuation of MS 10. Restricted to Associate Degree Program students.

Three credit hours

### **MS 102 Basic Technical Mathematics with Calculus, Part I**

Soychak

This course includes the traditional topics of college freshman mathematics: slide rule, functions, graphs, equations, systems of linear equations, determinants, trigonometry. Prerequisites: one year of high-school algebra and geometry, or permission of instructor.

Three credit hours

### **MS 103 Basic Technical Mathematics with Calculus, Part II**

Soychak

A continuation of MS 102 including more trigonometry, vectors, complex numbers, logarithms, analytic geometry, derivatives with applications, and integrals with applications. Prerequisite: MS 102 or permission of instructor.

Three credit hours

### **MS 104 Topics in Mathematics I**

Staff

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 inter-disciplinary in nature.

Three credit hours

### **MS 105 Topics in Mathematics II**

Staff

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.

Three credit hours

### **MS 109 Linear Systems**

Staff

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.

Three credit hours

### **MS 110 Elementary Mathematical Analysis**

Staff

A unified treatment of the elementary functions of analysis: their analytical properties including derivatives, integrals, and series; introduction to multivariate calculus; applications. Prerequisite: three years of high-school college-preparatory mathematics.

Three credit hours

### **MS 115 Introduction to Computers**

Staff

An introduction to the University's computer system. The programming language used will be BASIC, CUPL, or FORTRAN.

One credit hour

### **MS 116 An Introduction to Computer Systems**

Staff

An introductory study of the role of the computer in modern life; computer systems, languages, programming, techniques, and applications. Extensive use will be made of the University's computer system. This course is designed especially for non-mathematics majors. Prerequisites: Familiarity with the content of three years of high school college preparatory mathematics.

Three credit hours

**MS 120 Statistical Inference****Fish**

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. Three credit hours

**MS 131 Mathematics for Elementary Teachers I****Staff**

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: one year of high-school algebra and geometry. Three credit hours

**MS 132 Mathematics for Elementary Teachers II****Staff**

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 Three credit hours

**MS 140 Pre-Calculus Mathematics****Staff**

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. Three credit hours

**MS 150 Calculus I****Staff**

This is the first course in a sequence of four basic calculus courses (MS 150, 151, 250, and 251) which cover the study of functions of one or more variables, and their graphs, limits, derivatives, integrals, optimization, infinite series, vector valued functions, and various applications. Calculus I provides an introduction to the calculus of functions of a single variable. (Please compare description of Calculus A—MS 152.) Prerequisites: two years of high-school algebra, plus geometry and trigonometry; or MS 140. Three credit hours

**MS 151 Calculus II****Staff**

A continuation of MS 150. Prerequisite: MS 150. Three credit hours

**MS 152 Calculus A****Chabot**

For students in the engineering program, a sequence of three basic calculus courses (MS 152, 153, 252) is offered. Topics in this course sequence cover: calculus of functions of one or more variables, graphs, limits, derivatives, integrals, optimization, infinite series, vectors, and applications in physical sciences. Calculus A provides an introduction to the calculus of functions of one variable. Restricted to engineering students. Prerequisites: two years of high-school algebra, plus geometry and trigonometry; or MS 140. Four credit hours

**MS 153 Calculus B****Staff**

A continuation of Calculus A. Course will usually include infinite series and an introduction to vectors. Prerequisite: MS 152. Four credit hours

**MS 160 Introduction to Computer Programming****Staff**

An introductory study of programming techniques and applications using FORTRAN and BASIC Languages. Three credit hours

**MS 211 Probability****Staff**

Discrete and continuous sample spaces; common probability laws; expected values; sampling distributions. Prerequisites: MS 110 or MS 150. Three credit hours

**MS 212 Statistics****Staff**

Sampling distributions; estimation; hypothesis testing; introduction to regression analysis and analysis of variance. Applications primarily in business and economics. Prerequisite: MS 211. Three credit hours

**MS 231 Algebra for Elementary Teachers****Kratzer**

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 132 or permission of instructor.

Three credit hours

**MS 232 Geometry for Elementary Teachers****Kratzer**

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 132 or permission of instructor.

Three credit hours

**MS 233 Probability for Elementary Teachers****Kratzer**

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 132.

Three credit hours

**MS 235 History of Mathematics for Elementary Teachers****Estes**

A history of certain topics in number theory, geometry, and elementary algebra. Prerequisite: MS 132 or permission of instructor.

Three credit hours

**MS 250 Calculus III****Staff**

A continuation of the developments of Calculus I and II: solid analytic geometry, infinite series, partial differentiation, applications. Prerequisite: MS 151.

Three credit hours

**MS 251 Calculus IV****Staff**

Multiple integrals and an introduction to ordinary differential equations, applications. Prerequisite: MS 250.

Three credit hours

**MS 252 Calculus C****Chabot**

Multivariate calculus and vector calculus. Prerequisite: MS 153.

Four credit hours

**MS 290 Foundations of Mathematics****Staff**

Selected topics in set theory, symbolic logic, and methods of proofs needed in more advanced mathematics courses. Prerequisite: consent of the department.

Three credit hours

**MS 291 The Real Numbers****Staff**

An axiomatic construction of the real number system. Prerequisite: MS 290 or permission of instructor.

Three credit hours

**MS 292 Theory of Numbers****MacDonald**

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.

Three credit hours

**MS 350 Differential Equations****Irish**

A study of various methods for solving ordinary differential equations and initial value problems including transform, numerical, and series methods.

Three credit hours

**MS 352 Real Analysis I****MacDonald**

Limits, continuity, differentiation and integration of functions of one or more real variables, infinite series, uniform convergence, and other selected topics. Prerequisites: MS 251 (or 252), and MS 290.

Three credit hours

**MS 353 Real Analysis II****MacDonald**

A continuation of Real Analysis I. Prerequisite: MS 352.

Three credit hours

- MS 354 Topics in Advanced Calculus** Staff  
 Selected topics on multivariate functions, vectors, transformations, line integrals, and surface integrals. Prerequisite: MS 251 and MS 290. Three credit hours
- MS 355 Complex Analysis** Staff  
 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 251 or permission of instructor. Three credit hours
- MS 360 Computer Programming** Estes  
 Programming techniques using the FORTRAN language. Applications will be primarily from mathematics/statistics. Prerequisite: MS 160. Three credit hours
- MS 361 Numerical Analysis** Rogers  
 A study of the theory and application of computational algorithms for interpolation, equation solving, matrix methods, integration; error analysis. Prerequisites: MS 350 and MS 360. Three credit hours
- MS 362 Probability Theory** Bruckner  
 Probability laws, random vectors and their distributions, generating functions, expected values, sampling, distributions. Prerequisite: MS 251 or MS 252. Three credit hours
- MS 363 Mathematical Statistics** Bruckner  
 A study of estimators, their generation and properties, classical hypothesis testing, selected topics from regression, correlation, analysis of variance, non-parametric methods, and Bayesian techniques. Prerequisite: MS 362. Three credit hours
- MS 364 Statistical Methods for Research** Staff  
 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. Three credit hours
- MS 365 Design of Experiments** Staff  
 The study and application of the various factors used in conducting a statistical study; including block, split-plot, factorial designs; replication; some sampling methods. Applications. Three credit hours
- MS 366 Linear Programming** Foster  
 A study of matrix algebra applied to the problem of optimizing a linear function subject to linear inequity constraints, utilizing the simplex procedure. Prerequisite: MS 290. Three credit hours
- MS 370 College Geometry** Moulton  
 Selected topics from Euclidean geometry. Prerequisite: MS 290. Three credit hours
- MS 371 Projective Geometry** Staff  
 Synthetic and analytic projective geometry, including finite projective planes. Prerequisite: MS 290. Three credit hours
- MS 372 Non-Euclidean Geometry** Moulton  
 A development of one or more of the non-Euclidean geometrics. Prerequisite: MS 290.
- MS 373 Differential Geometry** Staff  
 A first course in the metric differential geometry of curves and surfaces in Euclidean space. Prerequisite: MS 251. Three credit hours
- MS 375 Coordinate Geometry** Staff  
 The choice and role of coordinate systems in various geometries. Three credit hours



**MS 380 Linear Algebra**

Staff

An introduction to the theory of vector spaces and linear transformations. Prerequisite: MS 290 and consent of instructor. Three credit hours

**MS 382 Abstract Algebra**

Brown, MacDonald

Algebraic structures, such as groups, rings, integral domains, and fields. Prerequisite: MS 290. Three credit hours

**MS 390 History of Mathematics**

Estes

The development of mathematics from ancient to modern times. Prerequisites: MS 151 and MS 290. Three credit hours

**MS 450 Partial Differential Equations**

Staff

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. Three credit hours

**MS 490 Topology**

MacDonald

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. Three credit hours

**MS 492 Graph Theory and Finite Combinatorics**

Guay

An introduction to the structures, concepts, and theorems of graph theory and a survey of finite combinatorial structures that can be viewed in a graphtheoretic framework. Prerequisite: MS 290. Three credit hours

**MS 495 Mathematical Problem Solving Techniques**

Estes

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. Three credit hours

**MS 496 Problem Solving Research**

Estes

Study of research concerning various approaches to problem solving in mathematics with emphasis on research. Study of research designs and construction of a design for a research project. Prerequisites: MS 495 and Statistics or permission of the instructor. Three credit hours

**MS 497 Independent Study in Mathematics**

Staff

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, bearing upon it previous course experiences and emerging with an intellectually sound, coherent synthesis. Prerequisite: junior or senior standing. One to three credit hours

**MS 498 Topics**

Rogers

Selected topics in advanced mathematics. Prerequisite: permission of instructor. Three credit hours

## COURSES IN MATHEMATICS EDUCATION

**MSED 345 Teaching Mathematics in the Secondary School**

Moulton

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. Three credit hours

# Music

Professors Bowder, H. Brown (Chairman), Chamberland; Associate Professor Puopolo; Assistant Professors R. Cole, Heel; Part-time Instructors Aldrich, Bennett, Bookataub, Garland, Tainter.

## APPLIED MUSIC INSTRUCTORS

Piano: Donna Aldrich Majorie Arnold Nina Bailey Naydene Bowder Thomas Bucci Ronald Cole Ocy Downs Robert Glover Richard Roberts	Cello: Katherine Graffam Paul Ross
	Bass: Katherine Graffam
	Flute: Frances Drinker
	Oboe: Roberta Barker
	Clarinet: Burchard Tainter
	Saxophone: Burchard Tainter
Voice: Harold Brown Gerard Chamberland Jeannette Chamberland Frank Hoffmeister Stewart Shuster Johanna von Tiling	Bassoon: Donald Curry
	Trumpet: Robert Pettipaw Calvin Torrey
Organ: Malcolm Cass John Fay Douglas Rafter George Whitney	French Horn: James Bennett Robert Miller Katherine Schmidt
	Trombone: James Bennett Donald Doane
Violin: Rebecca Garland Stephen Kecskemethy Ronald Lantz	Tuba: James Bennett
Viola: Julia Mosely	Percussion: George Bookataub
	Harp: Deidre Carr

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 Liberal Arts (Bachelor of Arts in Music). In addition, a minor in music is offered for students majoring in Elementary Education.

### 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 theory staff.

- C. A written standardized musical achievement test.
- D. A standardized test of musical aptitude.

### **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**

### **General Education**

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. These general requirements are printed inside the front cover of this catalog. In addition to the General Education Requirements, Music Education majors will be required to take (a) either General Psychology or Human Growth and Development and (b) Modern Philosophy of Education.

In addition to the regular curriculum, all music 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 two musical organizations each semester. Where possible, a student will participate in both a vocal and instrumental ensemble.

### **Piano Proficiency Requirement**

Each student shall be required to 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.

## Professional Education

In addition to the basic 18 credit hours in professional education, Music Education majors will complete the following:

MUED 220	Woodwind 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:

1. One day of directed observation of music education in cooperating schools in surrounding areas. Freshman music education students are accompanied by Senior music student teachers.
2. Five hours of assisting classroom teachers in music during the Sophomore year. Music education students serve in a capacity similar to teacher aides.
3. Elementary and secondary methods courses during Junior year wherein students observe, plan, and teach using actual classroom situations.
4. Student-teaching in Senior year 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
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	6
	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	6
MUED 220	Woodwind Class	2
MUED 221	Brass Class	2
MUED 222	Percussion Class	1
	Ensembles	2
	General Education Requirements	6
		<hr/> 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	6
MUED 320 and 321	String Class	4
MUED 322 and 323	Music Education Methods	6
	Ensembles	2
	General Education Requirements	9
		<hr/> 33

### *Senior Year*

MUS	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	3
MUED 420	Music Administration and Supervision	3
	Ensembles	1
	General Education Requirements	12
EDU 324	Student Teaching	12
		<hr/> 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 liberal arts.

		<i>Credit hours</i>
UMPG General Education Requirement		30
Electives (including language proficiency, but not including 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
		<hr/>
		124

The Bachelor of Arts in Music Curriculum requires a total of 124 hours.

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
		<hr/>
		24

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

Staff

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.

Three credit hours

##### MUS 202 Music in America

Cole

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.

Three credit hours

**MUS 203 Music in the Twentieth Century****Cole**

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. Three credit hours

**MUS 210 Fundamentals of Music****Staff**

A background study of concepts and skills essential to an intelligent reading of music. The development of natural musical abilities through participating in singing, rhythmic activities, and instrumental work. An appreciation of music through awareness of basic structures. Open to all students. Two credit hours

**MUS 211 Class Piano****Cole**

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. Two credit hours

**Music Performance Groups Open to all Students****MUS 400 Chamber Orchestra****Bowder**

One-half credit hour

**MUS 401 The Garham 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. One-half credit hour

**MUS 402 University Concert Band****Staff**

One-half credit hour

**MUS 403 A Cappella Choir****Brown**

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. One-half credit hour

**MUS 404 Brass Ensemble****Bowder**

One-half credit hour

**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. One-half credit hour

**Music History and Theory****MUS 120 History of Music I****Chamberland**

Medieval and Renaissance Periods: historical development and musical 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. Three credit hours

**MUS 121 History of Music II****Staff**

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. Three credit hours

**MUS 130 Music Theory I****Bowder**

Major and minor scales; intervals, triads, and chord connection; cadences; harmonization of soprano and bass lines utilizing primary triads; related dictation and keyboard application. Three credit hours

**MUS 131 Music Theory II****Bowder**

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); related dictation and keyboard application. Three credit hours

- MUS 132 Solfeggio I** Staff  
A course in sight singing and ear training. Primarily for majors, but open to others with permission of the instructor. Two one-hour meetings per week. One credit hour
- MUS 133 Solfeggio II** Staff  
A continuation of MUS 132. One credit hour
- MUS 220 History of Music III** Staff  
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. Three credit hours
- MUS 221 History of Music IV** Staff  
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. Three credit hours
- 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; related dictation and keyboard application. Three credit hours
- MUS 231 Music Theory IV** Bowder  
Contemporary techniques of composition; modern harmony, theory, and related studies. Three credit hours
- MUS 232 Solfeggio III** Staff  
An advanced course in sight singing and ear training. Two one-hour meetings per week. One credit hour
- MUS 233 Solfeggio IV** Staff  
A continuation of MUS 232. One credit hour
- MUS 320 Seminar in Music History** Cole  
A concentrated study of selected topics in Music History based on individual research. Prerequisites: History of Music I, II, III, and IV.
- MUS 330 Form and Analysis I** Staff  
Study and analysis of music of the Classical, Romantic, and Contemporary periods with emphasis on homophonic forms and styles. Prerequisite: Theory II. Two credit hours
- MUS 331 Form and Analysis II** Staff  
Study and analysis of music of the Baroque and Contemporary periods with emphasis on contrapuntal forms and styles. Prerequisite: Theory II. Two credit hours
- MUS 332 Counterpoint** Staff  
Tonal counterpoint. The process of invention and fugue as exemplified in the music of the Baroque era. Prerequisite: Theory III. Two credit hours
- MUS 420 Orchestration** Bowder  
A study of the nature of the various instruments. Practice in scoring for instrumental combinations, orchestra, and band. Three credit hours
- MUS 460 Independent Study in Music** Staff  
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. One to three credit hours



## 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. One-half credit hour

### **MUS 141 Vocal Ensemble for Freshmen**

Brown

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. One-half credit hour

### **MUS 142 Recital Class for Freshmen I**

Chamberland

Performance in major field, stage deportment, and evaluation of performances. Restricted to freshmen. One-half credit hour

### **MUS 143 Recital Class for Freshmen II**

Chamberland

A continuation of MUS 142.

One-half credit hour

### **MUS 150 Applied Music for Freshmen I**

Staff

May be taken in piano, voice, organ or any orchestra or band instrument. Normally one hour lesson per week in the major performance area (2 credits) and one half-hour lesson per week in the minor performance area (1 credit) in fulfillment of applied music requirements. Restricted to Freshmen. One to five credit hours

### **MUS 151 Applied Music for Freshmen II**

Staff

A continuation of MUS 150.

One to five credit hours

### **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. One-half credit hour

### **MUS 241 Vocal Ensemble for Sophomores**

Brown

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. One-half credit hour

### **MUS 242 Recital Class for Sophomores I**

Chamberland

Performance in major field, stage deportment, and evaluation of performances. Restricted to sophomores. One-half credit hour

### **MUS 243 Recital Class for Sophomores II**

Chamberland

A continuation of MUS 242.

One-half credit hour

### **MUS 250 Applied Music for Sophomores I**

Staff

May be taken in piano, voice, organ or any orchestra or band instrument. Normally one hour lesson per week in the major performance area (2 credits) and one half-hour lesson per week in the minor performing area (1 credit), in fulfillment of applied music requirements. Restricted to Sophomores. One to five credit hours

### **MUS 251 Applied Music for Sophomores II**

Staff

A continuation of MUS 250.

One to five credit hours

**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. One-half credit hour

**MUS 341 Vocal Ensemble for Juniors****Brown**

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. One-half credit hour

**MUS 342 Recital Class for Juniors I****Chamberland**

Performance in major field, stage deportment, and evaluation of performances. Restricted to juniors. One-half credit hour

**MUS 343 Recital Class for Juniors II****Chamberland**

A continuation of MUS 342.

One-half credit hour

**MUS 344 Instrumental Conducting****Bowder**

Practical conducting experiences; score reading, basic beat patterns, and interpretation. Two credit hours

**MUS 345 Vocal Conducting****Brown**

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. Two credit hours

**MUS 350 Applied Music for Juniors I****Staff**

May be taken in piano, voice, organ or any orchestra or band instrument. Normally one hour lesson per week in the major performing area (2 credits) and one half-hour lesson per week in the minor performing area (1 credit), in fulfillment of applied music requirements. Restricted to Juniors. One to five credit hours

**MUS 351 Applied Music for Juniors II****Staff**

A continuation of MUS 350.

One to five credit hours

**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. One-half credit hour

**MUS 441 Vocal Ensemble for Seniors****Brown**

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. One-half credit hour

**MUS 442 Recital Class for Seniors I****Chamberland**

Performance in major field, stage deportment, and evaluation of performances. Restricted to seniors. One-half credit hour

**MUS 443 Recital Class for Seniors II****Chamberland**

A continuation of MUS 442.

One-half credit hour

**MUS 450 Applied Music for Seniors I****Staff**

May be taken in piano, voice, organ or any orchestra or band instrument. Normally one hour lesson per week in the major performing area (2 credits) and one half-hour lesson per week in the minor performing area (1 credit), in fulfillment of applied music requirements. Restricted to Seniors. One to five credit hours

**MUS 451 Applied Music for Seniors II****Staff**

A continuation of either MUS 450 or MUS 351.

One to five credit hours

**MUS 460 Independent Study in Music****Staff**

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. One to three credit hours

## Music Education

**MUED 200 Music for the Classroom Teacher****Staff**

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. Three credit hours

**MUED 220 Woodwind Class****Tainter**

Methods of teaching woodwind instruments; practical experience on various woodwinds; and elements of transposition. Two credit hours

**MUED 221 Brass Class****Bowder**

Methods of teaching brass instruments including practical experience on the various instruments; elements of transposition. Three credit hours

**MUED 222 Percussion Class****Bookataub**

Practical experience on and methods of teaching percussion instruments.

One credit hour

**MUED 320 String Class — Violin****Garland**

Class methods and materials in teaching violin. Fundamentals of violin, including bowing, tone production, intonation, and fingering techniques extended into third position.

Two credit hours

**MUED 321 String Class — Ensemble****Heel**

String ensemble methods and materials for beginning strings. Fundamentals of violin, cello, and string bass. Rudiments of fingering, bowing, and tone production.

Two credit hours

**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. Three credit hours

**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 MU ED 322. Three credit hours

**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. Three credit hours

# Philosophy

Professors MacLeod, F. Schwanauer; Associate Professors Gavin (Chairman), Grange.

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 discipline head. 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 24 hours of courses beyond a PLY 100-level course.

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.

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 is to deal with an area of philosophy not covered by courses taken by the student. (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.

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.

Three credit hours

### **PLY 102 Introduction to Philosophy: Counter Culture**

Gavin

An examination of the supposed connection between technocracy, impartiality, and objectivity. The history of philosophy will be utilized to trace the identification of true knowledge with "certainty." An analysis of twentieth century alternatives, including existentialism, pragmatism, and various views of the counter culture, will be undertaken.

Three credit hours

### **PLY 103 Introduction to Philosophy: The Alienation of Man**

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.

Three credit hours

### **PLY 104 Introduction to Philosophy: Ways of Knowing**

Staff

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.

Three credit hours

### **PLY 105 Introduction to Philosophy: Man and Morals**

A. Pic'l

This discussion course, based on the theme of how one should live, is designed to actively engage the student in the critical examination and the justification of personal values within the context of possible alternative values suggested by Plato, Zen Buddhism, Kant, existentialism, and others.

Three credit hours

### **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.

Three credit hours

### **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.

Three credit hours

### **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.

Three credit hours

### **PLY 230 Philosophy of Religion**

Staff

Analysis of the nature of religious experience, knowledge, and language. Special attention given to problems, classical and contemporary, exhibited in religious experience, and relevant to areas of common concern in the sciences, humanities, and philosophy. Prerequisite: any PLY 100-level course.

Three credit hours

### **PLY 240 Political Philosophy**

Grange

Critical evaluation of political philosophies, classical and contemporary; extensive reading in original texts; analysis of contemporary political issues. Prerequisite: any PLY 100-level course.

Three credit hours

### **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.

Three credit hours

**PLY 290 Problems of Philosophy****Staff**

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. Three credit hours

**PLY 299 (see HIST 377)**

This course meets the requirements for a major either in history or philosophy.

**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. Three credit hours

**PLY 320 History of Medieval Philosophy****Grange**

The merger of the philosophic with the religious stream; ideas of Augustine, Thomas Aquinas, Duns Scotus, and others critically examined; determining cultural factors explored. Prerequisite: a PLY 100 course, PLY 310. Three credit hours

**PLY 330 History of Early Modern Philosophy****Grange**

Main currents of rationalism and empiricism are explored, as developed in major writings from Descartes to Hume. Prerequisite: Any PLY 100-level course. Three credit hours

**PLY 340 History of Late Modern Philosophy****Schwanauer**

Development of German idealism; emergence of social and scientific philosophies; contributions of Kant, Hegel, Schopenhauer, Nietzsche, Feuerbach, and others. Prerequisite: PLY 330. Three credit hours

**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. Three credit hours

**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, Jaspers, Buber, Marcel, and others. Prerequisite: any PLY 100-level course. Three credit hours

**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. Three credit hours

**PLY 400, 401, 402 Seminar in Philosophy****Staff**

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. In 1972-73 the following seminar was given: PLY 400 Seminar: Nietzsche. In the Fall of 1973 the following seminars will be given: PLY 400 Seminar: Anti-Behaviorism; PLY 401 Seminar: The Being of Education. Among the possible topics for the PLY 402 Seminar in the Spring of 1974 are the following: William James, Josiah Royce, or Russian Philosophy. Three credit hours

**PLY 410 Senior Tutorial****Staff**

Designed to furnish senior philosophy majors with extensive training, under tutorial supervision, in analysis of a philosophical problem or system not generally covered by regular department offerings, with a view to producing and presenting a senior paper for oral defense. Prerequisites: senior standing, advanced standing, and permission of the department. Credit hours to be arranged

# Physical Sciences and Engineering

Professors Kirwin, A. Smith, Sottery, M. Whitten; Associate Professors Armentrout, Ayers, Grass, Hare, Hopkinson, Miller, Walking; Assistant Professors Novak, Pendleton (Chairman).

Courses offered by the Department of Physical Sciences and Engineering are grouped under the following headings:

**ASTRONOMY**

**CHEMISTRY**

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

**ENGINEERING** (including the  
Master of Engineering program)

**GENERAL SCIENCE** (including  
Meteorology and Oceanography)

**GEOLOGY**

**PHYSICAL SCIENCE**

**PHYSICS**

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.

No major is currently offered in this department for students in the College of Liberal Arts. For students who ultimately desire to major in either Chemistry, Geology, Engineering, or Physics, the first two years of work are available at the University of Maine at Portland-Gorham, but the third and fourth years of such work are currently available only at the Orono campus of the University of Maine.

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. These general requirements are printed inside the front cover of this catalog.

## 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 UMPG general requirements, enables one to receive the State of Maine Secondary Science Area Certificate.

### Freshman Year

Freshmen should take one of the following sequences, together with a selection of other courses needed to meet the General Education Requirements, the Physical Education Requirements of The School of Education, and

appropriate courses from those required by the School of Education. Any electives in the Science area should be chosen to meet the requirements of Groups A, B, C, and the other electives listed below. A student should plan to take 8 hours of Chemistry and 8 hours of Physics by the end of the Sophomore year.

### One Sequence to Be Chosen:

		<i>Credits</i>
CHEM 111 and 112	General Chemistry (4 credits each semester)	
or	to be taken as a two-semester sequence	8
CHEM 113 and 114	Chemical Principles (4 credits each semester)	
or	to be taken as a two-semester sequence	8
PHYS 111 and 112	Elements of Physics (4 credits each semester)	
or	to be taken as a two-semester sequence	8
PHYS 121 and 122	General Physics (4 credits each semester) to be taken as a two-semester sequence	8

### 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 — 28 Credit Hours Required

CHEM 111 and 112 or CHEM 113 and 114	General Chemistry (4 credits each semester) or Chemical Principles (4 credits each semester)	8
PHYS 111 and 112 or PHYS 121 and 122	Elements of Physics (4 credits each semester) or General Physics (4 credits each semester)	8
GEOL 111	Physical Geology	3
GEOL 112	Historical Geology	3
ASTR 100	Astronomy	3
MET 100	Meteorology	3

#### Group B — 8 Credit Hours Required

BIO 215 and 216	Vascular Botany (3 credits) plus Vascular Field Botany (1 credit) to be taken together	4
or		
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



### Group C — 3 Credit Hours Required

ESCI 202	Conservation	3
PSCI 310	History of Science	3
BIO 251	History of Biology	3

### Electives

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

ASTR 110	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 292	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 151	Environmental Chemistry	3
CHEM 201	Organic Chemistry	4
CHEM 202	Introduction to Biochemistry	4
CHEM 251 and 261	Organic Chemistry (3 credits) plus Organic Chemistry Laboratory (2 credits) to be taken together	5
CHEM 252 and 262	Organic Chemistry II	5
ESCI 200	Environmental Science	3
ESCI 201	Natural Science	3
GEOL 114	Environmental Geology	4
GEOL 201	Structural Geology	3
GEOL 203	Mineralogy	3
GEOL 205 or		
OCN 205	Geological Oceanography	3
GEOL 301	Geomorphology (also GEOL 301)	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**

**Minor — 18 Hours (Required Courses — 6 Credit Hours or equivalent —  
Electives — 12 Credit Hours)**

PSCI 110	Elements of Physical Science	3
BIO 101	Biological Principles	3

**Major — 30 Hours (Required Courses — 20 Credit Hours. Electives —  
10 Credit Hours)**

PSCI 110	Elements of Physical Science	3
BIO 101	Biological Principles	3
BIO 102	Biological Principles Lab	1
ASTR 100	Astronomy	3
GEOL 111	Physical Geology	3
MET 100	Meteorology or	3
OCN 100	Oceanography	3
BIO 103	Biological Diversity	3
BIO 104	Biological Diversity Lab	1

**Elective Courses — (Any Science Course Listed for Science Area Major)**

## **REQUIREMENTS FOR AN EARTH SCIENCE AREA MAJOR IN SECONDARY EDUCATION**

The Earth Science Area Major requires completion of a minimum of 50 credit hours. This major is intended primarily for those students planning to teach Earth Sciences in the ninth grade. Completion of this program, required courses in Education, and those needed to meet UMPG General Requirements, enables one to receive the State Certification.

### **Suggested Earth Science Sequence**

#### **Freshman Year**

GEOL 111	Physical Geology	3
GEOL 112	Historical Geology	3

**Chemistry or Physics.** Freshmen should take one of the following eight-credit sequence. At the end of the Sophomore year, the student should have eight hours of Physics and eight hours of Chemistry.

CHEM 111 and 112	General Chemistry	8
or		
CHEM 113 and 114	Chemical Principles	8
or		
PHYS 111 and 112	Elements of Physics	8
or		
PHYS 121 and 122	General Physics	8

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

## Sophomore Year

GEOL 203	Mineralogy	3
	Chemistry or Physics, whichever subject has not been taken in the Freshman year	8
	Science Area Major Elective (List A)	3

## Junior Year and Senior Year

	Science Area Major Electives, (List A)	6
	Science Area Major Electives, (List B)	16

### List A (6 hours Required)

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

### List B (16 Hours Required)

ASTR 110	Observational Astronomy	3
CHEM 151	Environmental Chemistry	3
ESCI 200	Environmental Science	3
ESCI 201	Conservation	3
ESCI 390	Independent Study	1-3
GEOL 114	Environmental Geology	4
GEOL 201	Structural Geology	3
GEOL 205 or OCN 205	Geological Oceanography	3
GEOL 301	Geomorphology (also GEOG 301)	3
GEOL 302	Sedimentology	3
GEOL 310	Glacial and Pleistocene Geology	3
OCN 310	Applied Marine Science	4
PSCI 310	History of Science	3

**NOTE:** EDU 318 — Teaching Science in the Secondary School does not count in the required 50 hours.

# ASTRONOMY

## COURSES IN ASTRONOMY

### ASTR 100 Astronomy

Ayers

A course largely descriptive and non-mathematical in nature, with emphasis on practical work. A survey of the solar system with emphasis on recent observational procedures and data. Stellar astronomy including composition, distribution, and evolution of stars. Theories of the universe. Open to all students. Three credit hours

### ASTR 109 Introduction to Astronomy

Staff

A non-mathematical survey of modern astronomy. Among the topics covered are observing instruments and techniques, origin and characteristics of the planetary system, properties and evolution of stars, galaxies, cosmology, and the possibility of other life in the Universe. Unsolved problems and areas of current research are emphasized. Planetarium sessions and optional observatory field trips supplement the lecture materials. Three credit hours

### ASTR 110 Observational Astronomy

Ayers

A course in the observation of the skies. Includes planetarium sessions, observation at the 4-in. and 8-in. telescopes, practice with celestial globes, and utilization of cameras for sky photography. Star atlases and catalogs are also used. Prerequisite: ASTR 100 or equivalent. (Offered every Fall) Three credit hours

# CHEMISTRY

The field of chemistry is concerned with the structure of matter and its transformations. The chemistry curriculum is intended to prepare the student eventually to be a professional chemist. In order to accomplish this purpose the program must have sufficient breadth so that the graduate will be able to go into industrial chemistry, teaching, research, or graduate study.

Presently, a standard four-year major program is not available at UMPG. Students who wish to enter a standard chemistry major program should plan to transfer to the Orono branch of the university for the junior and senior years. (Such students should contact the chairman of the chemistry department at UMO concerning current departmental major requirements.) Courses in analytical and physical chemistry will be offered as soon as physical facilities become available. The inclusion of these courses in the chemistry offering would allow students with primary interest in chemistry to pursue innovative major programs in the Department of Physical Sciences and Engineering. Since chemistry is fundamental to so many areas, the department intends to offer a wide choice of electives so that such students with interest in the fields of mathematics, physics, ecology, geology, or biological chemistry may have special programs tailored to help them attain their educational goals.

A variety of career opportunities in the industrial field are open to students who complete a major program in chemistry. Some examples are process development, production, quality control, and sales. The opportunities to engage in research and college level teaching are in general available only to the student who has pursued successful graduate study.

Instruction in chemistry is given by lectures, recitations, and supervised laboratory work which is an indispensable part of the training of professional chemists. While much laboratory work is individual in nature, students are encouraged to consult with one another regarding observations and conclusions.

## COURSES IN CHEMISTRY

### **CHEM 101 Modern Chemistry I**

Sottery

An introduction to some modern chemical theories and concepts. Topics selected for study emphasize the relationship of chemistry to life systems and the environment. Recommended for students of life sciences and environmental studies who require a foundation for further consideration of the chemistry of living systems, and for non-science majors who wish to enhance their understanding of chemistry and its role in survival of life. Prerequisite: previous study of chemistry is helpful but not required. Four credit hours

### **CHEM 102 Modern Chemistry II**

Sottery

A continuation of the studies initiated in CHEM 101. Recommended as a prerequisite for CHEM 201. Prerequisite: CHEM 101. Four credit hours

### **CHEM 111 General Chemistry I**

Smith, Whitten

A study of selected fundamental concepts and theories of chemistry. Atomic structure, periodic classification, chemical bonding, molecular structure, chemical reactions, and equilibria are discussed. Four credit hours

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

Smith, Whitten

A continuation of the topics presented in CHEM 111. Prerequisite: CHEM 111. Four credit hours

**CHEM 113 Chemical Principles I**

Smith or Sottery

An intensive examination of modern chemistry, comprising structural theory (atomic and molecular levels), stoichiometry, chemical kinetics and equilibrium, colligative properties, elementary thermodynamics, ionic equilibria, and electrochemistry. A sound preparation in mathematics (logarithms, exponents, linear and quadratic equations) is essential for mastery of this course. The laboratory work includes qualitative and quantitative experiments intended to illustrate lecture presentations. Recommended for students who plan further study in physical sciences or engineering. Prerequisite: At least three years of high school mathematics, and high school chemistry, or equivalent. Prior or concurrent registration in MS 150, and MS 152, or equivalent experience.

Five credit hours

**CHEM 114 Chemical Principles II**

Smith or Sottery

A continuation of the topics presented in CHEM 113. Prerequisite: CHEM 113.

Four credit hours

**CHEM 151 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.

Three credit hours

**CHEM 201 Brief Organic Chemistry**

Sottery or Whitten

A brief introduction to nomenclature and reactions of those functional groups of organic compounds which are important to life systems. Models are employed to enhance the student's comprehension of molecular shapes and conformations and the laboratory work includes training in some of the basic techniques of chromatography and spectroscopic methods. Recommended as a prerequisite for CHEM 202. Prerequisite: a C grade or better in CHEM 102 or 112 or 114.

Four credit hours

**CHEM 202 Biochemistry**

Schwinck

Chemistry of biologically important molecules, including carbohydrates, proteins, lipids, and nucleic acids, and the principles of the main metabolic pathways in living systems. Prerequisites: A grade of C or better in CHEM 201 or CHEM 252, and BIO 101 and 103 or with instructor's permission.

Four credit hours

**CHEM 251 Organic Chemistry I**

Smith

A survey of the chemistry of carbon compounds, with extensive use of modern theories of structure and reaction mechanisms. Considerable emphasis will be placed on nomenclature; on the use of spectroscopic methods for structure determination, and on molecular geometry. Required for chemistry majors; recommended for premedical and pre dental students, and for majors in the biological sciences who will require subsequent course work in biochemistry. Prerequisites: a grade of C or better in CHEM 114 or 112 or 102.

Three credit hours

**CHEM 252 Organic Chemistry II**

Smith

A continuation of the topics considered in CHEM 251. Prerequisite: CHEM 251.

Three credit hours

**CHEM 261 Organic Chemistry Laboratory I**

Smith or Sottery

An initiation to modern laboratory techniques used for the synthesis and study of organic compounds. The laboratory exercises introduce common syntheses, chemical spectroscopy, chromatographic methods, simple reaction kinetics, and organic qualitative analysis. Prerequisite: credit or concurrent registration in CHEM 251.

Two credit hours

**CHEM 262 Organic Chemistry Laboratory II**

Smith or Sottery

A continuation of the studies initiated in CHEM 261. Prerequisites: credit or concurrent registration in CHEM 252 and a grade of C or better in CHEM 261.

Two credit hours

# GEOLOGY

## COURSES IN GEOLOGY

### **GEOL 111 Physical Geology**

Miller, Novak

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.

Three credit hours

### **GEOL 112 Historical Geology**

Miller, Novak

Study of the earth's history in terms of physical, chemical, and biological change, from its origin to the present time. Focus upon the methods of determining chronology and conditions through fossils and structural characteristics.

Three credit hours

### **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. A laboratory course. Prerequisite: GEOL 111 or permission of the instructor.

Four credit hours

### **GEOL 201 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: any one of the following: GEOL 101, 102, 111, or 112.

Three credit hours

### **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 101, 102, 111, or 112.

Three credit hours

### **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 on 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 credit hours

### **GEOL 301 Geomorphology (also GEOG 301)**

Novak

Description and interpretation of landform development in terms of geologic structure, process, and stage. Field trips and laboratory. Prerequisite: GEOL 201 or permission of the instructor.

Three credit hours

# EARTH SCIENCE

## COURSES IN EARTH SCIENCE

### **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.

Three credit hours

### **ESCI 201 Natural Science**

Barker

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 credit hours

**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. Three credit hours

**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 credit hours

**OCN 100 Introduction to Oceanography**

Hare

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 credit hours

**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 credit hours

**OCN 310 Applied Marine Science**

Knowlton and others

Applications of basic research techniques of the biological and physical sciences to the study of marine and estuarine eco-systems. 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.) Four credit hours

## ENGINEERING

The University of Maine at Portland-Gorham offers the first year of the program common to all Engineering majors, and the first and second years in Electrical Engineering. 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 at UMPG continue their studies at UMO.

The Master of Engineering Degree is available at UMPG. This program is intended for employed engineers and scientists desiring to maintain and improve their professional competence. Students may complete all degree requirements at UMPG, as the program is fully administered here.

### ENGINEERING FRESHMAN YEAR

Fall Semester			Spring Semester		
Subject		Credit hours	Subject		Credit hours
CHEM 113	Chemical Princ.	5	CHEM 114	Chemical Princ.	5
GEE 101	Intro. to Design	2	ENG 120	Intro. to Literature	3
MS 152	Calculus A	4	GEE 102	Intro. to Design	2
PE 100	Physical Education	1	MS 153	Calculus B	4
PHYS 121	General Physics	4	PE 100	Physical Education	1
GEE 105	Orientation	1	MS 122	General Physics	4
		—	GEE 106	Orientation	1
		17			20

## ELECTRICAL ENGINEERING SOPHOMORE YEAR

Fall Semester			Spring Semester		
Subject		Credit hours	Subject		Credit hours
ELE 201	Circuit Analysis I	5	ELE 202	Circuit Analysis II	3
ENG	Literature Elective	3	ELE 212	Basic Elect. Lab	2
GEE 207	Computer Programming	3	MS 350	Diff. Equations	3
MS 252	Calculus C	4	MEE 252	Applied Mechanics	3
MEE 255	Statics & Strength	3	ELE 209	Ele. Engrg. Materials	3
				Humanities Elective	3
		18			17

## COURSES IN ENGINEERING

**GEE 101 Introduction to Engineering Design I** Staff

Creative exercises in multiview drawing using freehand and instrumental techniques.  
Two credit hours

**GEE 102 Introduction of Engineering Design II** Staff

A continuation of GEE 101 which is prerequisite. Two credit hours

**GEE 105 Technology Orientation I** Staff

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.  
One credit hour

**GEE 106 Technology Orientation II** Staff

A continuation of GEE 105. One credit hour

**GEE 207 Computer Programming** Staff

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).  
Three credit hours

**MEE 211 Introductory Engineering Metallurgy** Staff

Methods of defining the microstructure of metals, phase diagrams, and mechanical properties. Thermal, mechanical, and chemical manipulation of microstructure. Not for mechanical engineering degree credit.  
Three credit hours

**MEE 212 Elementary Heat Power** Staff

Elementary thermodynamics, mechanical apparatus, power plant equipment; engineering calculations relative to heat, power, work, and mechanical and electrical energy. Not for mechanical engineering degree credit.  
Three credit hours

**MEE 252 Applied Mechanics, Dynamics** Staff

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

**MEE 255 Statics and Strength of Materials** Staff

The basic principles of statics and their applications in strength of materials. Equilibrium of various systems. Stresses and deformations of axially loaded members, connections, circular shafts, beams, and columns.  
Three credit hours

**ELE 201 Circuit Analysis I** Staff

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



**ELE 202 Circuit Analysis II****Staff**

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

**Three credit hours****ELE 209 Electrical Engineering Materials****Staff**

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.

**Three credit hours****ELE 212 Basic Electrical Laboratory****Staff**

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.

**Two credit hours****MASTER OF ENGINEERING PROGRAM**

The program of studies leading to the degree of Master of Engineering is based upon a required core sequence of courses in engineering techniques and principles of business management. The technical courses in the core of the program develop analytical and numerical techniques for the solution of problems in all branches of engineering. The management courses are especially designed to acquaint engineers with the major considerations that influence the decision-making process in the conduct of business.

In addition to the 18 credits of core courses, each student selects 12 credits of advanced work in a carefully planned and approved program. Of these 12 credits, at least 9 must be in engineering courses. In appropriate circumstances, a thesis may be submitted in fulfillment of up to 6 credits of the required total of 30 credits. Conferral of the degree is contingent upon passing a comprehensive examination at the conclusion of all course work.

Candidates for admission to the program must hold a baccalaureate degree in a branch of engineering, physics, mathematics, or chemistry. When there is a substantial doubt concerning the qualification of an applicant, a diagnostic entrance examination will be administered. No more than 12 credits, earned before admission as a matriculated student, may be applied toward the 30-credit degree requirement.

**Master of Engineering Core Courses**

<i>Subject</i>	<i>Credit hours</i>
GEE 501 and 502 Applied Mathematics I and II (3 credits each)	6
GEE 521 Optimal Design	3
GEE 522 Linear Systems	3
GEE 531 and 532 Management and Policy I and II (3 credits each)	6

**COURSES IN MASTER OF ENGINEERING****GEE 501 Applied Mathematics I****Staff**

Topics in applied mathematics. Special functions of Bessel, Legendre, Laguerre, Hermite, Gamma, and Beta functions. Analytic functions of complex variables. Calculus of variations. Partial differential equations, the Eigenvalue problem.

**Three credit hours****GEE 502 Applied Mathematics II****Staff**

A continuation of GEE 501.

**Three credit hours**

- GEE 521 Optimal Design** Staff  
Analytical and numerical procedures for the optimization of engineering design. Applications of digital and analogue computers in design. Design Project. Three credit hours
- GEE 522 Linear Systems** Staff  
Linear lumped and distributed systems analysis. State variable and transform techniques. Study of discrete and continuous systems including impulse response, controllability, observability, fundamental matrix, and stability. Three credit hours
- GEE 531 Management and Policy I** Staff  
A study of policy formulation and business practices as viewed by the senior executive. This course will include case discussions and critical review of the current literature. Three credit hours
- GEE 532 Management and Policy II** Staff  
A continuation of GEE 531. Three credit hours
- GEE 541 Engineering Statistics** Staff  
Applications of probability and statistics to engineering and scientific problems. Probability, distribution, estimation, hypothesis testing, regression, analysis of variance, applications to decision theory and reliability theory. Three credit hours
- ELE 542 Statistical Communication Theory I** Staff  
Analysis and synthesis of communication systems using statistical techniques. Statistical and spectral representations of random signals and noise, linear optimum systems, modulation theory, detection of signals in noise. Three credit hours
- ELE 543 Statistical Communication Theory II** Staff  
A continuation of ELE 542. Three credit hours
- ELE 561 Electronics Devices and Circuits I** Staff  
Theory of semiconductor devices including diodes, BJTs, MOSFETs, and integrated circuits. Applications in wideband amplifiers, logic circuits, multivibrators, switching circuits, etc. Three credit hours
- ELE 562 Electronic Devices and Circuits II** Staff  
A continuation of ELE 561. Three credit hours
- ELE 565 Electromagnetic Theory I** Staff  
Maxwell's equations, static and dynamic fields, wave propagation, transmission lines and microwave systems, electromagnetic properties of materials and plasmas. Three credit hours
- ELE 566 Electromagnetic Theory II** Staff  
A continuation of ELE 565. Three credit hours
- ELE 571 Control Systems I** Staff  
Topics in classical control system analysis and design, including stability and compensation. Modern control theory including the state variable formulation and optimization. Computer simulation of systems. Three credit hours
- ELE 572 Control Systems II** Staff  
A continuation of ELE 571. Three credit hours
- ELE 599 Special Topics in Electrical Engineering** Staff  
Study of selected topics of mutual interest to students and instructor. Three credit hours

# 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 one-hour lectures and one two-hour lab per week.

Three credit hours

### **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.

Three credit hours

### **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.

Three credit hours

### **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.

Three credit hours

### **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.

Three credit hours

### **PSCI 498 Independent Study in the Physical Sciences**

Staff

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.

One to three credit hours

## PHYSICS

A physics major is not offered at UMPG. A student beginning in PHYS 121 and 122 in the fall semester of 1973 may expect to complete the first two years of a physics major, after which the student must transfer to the Orono campus to complete the program.

Students intending to major in Physics should normally register to take PHYS 121 and 122, and MS 152 and MS 153 as Freshmen. Since the degree program is currently completed at UMO, the degree requirements outlined in the UMO catalog will apply to all physics majors.

Students expecting to major in Physics are advised to begin taking chemistry, mathematics, and physics, as required, in the Freshman year to avoid course conflicts in the following three years.

### **Physics Minor**

*Credit hours*

Group A — 8 credit hours required

PHYS 111 and 112 Elements of Physics (4 credits each semester)

or to be taken as a two-semester sequence 8

PHYS 121 and 122 General Physics (4 credits each semester)

to be taken as a two-semester sequence 8

Group B — 3 or 4 credit hours required

PHYS 210	Introductory Modern Physics	4
PHYS 221	Intermediate Physics	4
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
MET 100	Meteorology	3
OCN 100	Oceanography	3

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

## 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. Three credit hours

**PHYS 111 Elements of Physics I** Grass

A laboratory course in which selected experiments in physics are used to demonstrate physical principles and make possible a deeper study of physical phenomena. Lectures, demonstrations, problem solving, films and filmstrips are employed to develop an understanding of mechanics, sound, optics, heat, electricity, and modern physics. Prerequisite: a course in high school algebra. Four credit hours

**PHYS 112 Elements of Physics II** Grass

A continuation of topics covered in PHYS 111. Four credit hours

**PHYS 121 General Physics I** Walking

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 150, or equivalent experience. Four credit hours

**PHYS 122 General Physics II** Walking

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. Four credit hours

**PHYS 210 Introductory Modern Physics** Armentrout

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. Four credit hours

**PHYS 221 Intermediate Physics I** Armentrout

A more mathematical treatment of mechanics, heat, sound, electricity and light than provided in PHYS 121, and PHYS 122. May be taken without laboratory for 3 credits with special permission of the instructor. Prerequisites: PHYS 122 and CHEM 114 or equivalent and one year of calculus. Four credit hours

**PHYS 222 Intermediate Physics II** Armentrout

A continuation of topics covered in PHYS 221. Prerequisite: PHYS 221. Four credit hours

**PHYS 390 Independent Physics Laboratory** Staff

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. Three credit hours

# Political Science

Associate Professors Peirce (Chairman), Pease (on leave); Assistant Professors Coogan, Fisher (on leave, Fall Semester, 1973), Maiman, Roberts, Woshinsky.

## Requirements for the Major in Political Science:

- a. Each major must complete a minimum of 36 hours in the Department.
- b. Each major must complete POL 101 and 102.
- c. Each major must take at least one course in four of following five offerings of the Department:

### *Constitutional Law*

POL 252  
POL 283  
POL 284  
POL 305

### *Political Theory*

POL 289  
POL 290  
POL 291

### *American Political System*

POL 210  
POL 213  
POL 233  
POL 234  
POL 251  
POL 257  
POL 258  
POL 357  
POL 358  
POL 359  
POL 380

### *International Politics*

POL 239  
POL 273  
POL 274  
POL 275  
POL 387  
POL 388

### *Comparative Political Systems*

POL 235  
POL 236  
POL 237  
POL 238  
POL 240  
POL 332

- d. Each major is required to participate in at least one Seminar (POL 400, 401, 402, 403). In unusual cases students may, with departmental permission, substitute independent study for a Seminar.

NOTE: POL 121 and 122, Current World Problems, may not be counted toward any major requirements.

Upper-level Political Science courses *all* require either POL 101 or 102 or the permission of the instructor.

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.

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. These general requirements are printed inside the front cover of this catalog.

## COURSE DESCRIPTIONS

### **POL 101 Introduction to American Government**

Staff

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.

Three credit hours

### **POL 102 Man and Politics**

Staff

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.

Three credit hours

### **POL 121 Current World Problems I**

Roberts

Contemporary domestic and international affairs with emphasis on events in the Communist world and the underdeveloped areas. (Not offered in 1973-74)

Two credit hours

### **POL 122 Current World Problems II**

Roberts

A continuation of POL 121. Prerequisite: POL 121. (Not offered in 1973-74)

Two credit hours

### **POL 210 Power and Change in American Society**

Fisher

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.

Three credit hours

### **POL 213 State Government**

Coogan

State constitutions, legislatures, governors, bureaucracies, and courts; relationships with other state, local, and federal governments; the problems and prospects for Maine. Prerequisite: POL 101 or 102.

Three credit hours

### **POL 233 The American City**

Coogan

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.

Three credit hours

### **POL 234 Municipal Administration**

Fisher

The management, financial control, and administration of modern American cities, with emphasis on administration of personnel and finance, the city plan, and line functions: public safety, transportation, health, welfare, and housing. Prerequisite: POL 233 and consent of the instructor.

Three credit hours

### **POL 235 Democratic Governments of Europe**

Roberts, Woshinsky

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.

Three credit hours

### **POL 236 Communist Governments**

Roberts

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.

Three credit hours

### **POL 237 The Politics of the Soviet Union**

Roberts

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

**POL 238 Canadian Government and Politics**

Woshinsky

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.

Three credit hours

**POL 239 Soviet Foreign Policy**

Roberts

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 within the Communist world.

Three credit hours

**POL 240 The Politics of Developing Nations**

Roberts

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.

Three credit hours

**POL 251 Public Administration**

Coogan

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.

Three credit hours

**POL 252 Administrative Law**

Maiman

Primarily case studies of the legal adjustment of administrative authority and individual liberty, including judicial control over administration, personal liability of officers, scope and limits of administrative powers, and the due process measurement of administrative procedure. Prerequisite: POL 251. (Not offered in 1973-74)

Three credit hours

**POL 257 Political Parties**

Coogan

Development and present organization and operation of the American party system. Nature and function of major and minor parties, sectionalism, nominating system, presidential and congressional elections, the electorate, finance, interest groups. Prerequisites: POL 101 and 102.

Three credit hours

**POL 258 Public Opinion**

Coogan

The role of public opinion in American democracy; definition and measurement; sociological and psychological influences; mass media; linkage to government. Prerequisites: POL 101 and 102.

Three credit hours

**POL 273 International Relations I**

Peirce

First semester: the nation-state system, techniques of states in expanding their influence, and restraints imposed on their freedom of action.

Three credit hours

**POL 274 International Relations II**

Peirce

Second semester: Continuation of POL 273.

Three credit hours

**POL 275 United States Foreign Policy**

Peirce

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.

Three credit hours

**POL 283 The American Judicial System**

Maiman

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.

Three credit hours

**POL 284 American Civil Liberties**

Maiman

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.

Three credit hours

**POL 289 Political and Social Thought I**

Fisher

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.

Three credit hours

**POL 290 Political and Social Thought II**

Fisher

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.

Three credit hours

**POL 292 American Political Thought**

Maiman

An examination of American historical and contemporary thinking on a variety of political topics including equality, revolution, liberty, property, war, and individualism.

Three credit hours

**POL 305 Comparative Judicial Decision-Making**

Maiman

A cross-national study of the social and psychological determinants of judicial decision-making. The course will also focus on the social effects of judicial decisions. Prerequisite: Consent of the instructor. (Not offered in 1973-74)

Three credit hours

**POL 332 Comparative Political Behavior**

Woshinsky

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.

Three credit hours

**POL 353 Municipal Internship**

Fisher

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.

Three to six credit hours

**POL 354 State Internship**

Staff

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.

Three to six credit hours

**POL 355 Congressional Internship**

Staff

A first-hand study of the national legislative process and the function of the legislator. The student will be assigned to the staff of a Congressman or Senator in Washington, D.C., from about February 1 until the end of June. Readings and reports are required in addition to the staff work. Open to juniors on a competitive basis. Rules announced publicly each fall semester.

Six credit hours

**POL 357 The American Presidency**

Peirce

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.

Three credit hours

**POL 358 The American Congress**

Woshinsky

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.

Three credit hours



**POL 359 Problems of American Government****Staff**

Analysis of basic problems of United States national government. Case studies in such areas as federalism, civil rights, congressional and presidential relations, judicial functions, taxation, and foreign affairs. Prerequisite: POL 101.

**Three credit hours****POL 360 Problems of State Government****Staff**

A consideration of the theory, organization, and functions of the American states and their present-day problems. Prerequisite: POL 213.

**Three credit hours****POL 387 International Law****Peirce**

An analysis from the political perspective of the sources, limitations, and institutions of international law in the search for effective legal standards to achieve world order. Offered in alternate years beginning in 1971-1972.

**Three credit hours****POL 388 International Organization****Peirce**

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 years beginning in the spring semester of 1971-1972.

**Three credit hours****POL 395 Independent Study I****Staff**

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.

**Three to six credit hours****POL 396 Independent Study II****Staff**

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.

**Three to six credit hours****POL 397 Independent Study III****Staff**

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.

**Three to six credit hours****POL 400 Seminar in American Politics****Woshinsky**

A seminar focusing on the political psychology of American politicians. The course will seek to provide answers to two basic questions: What rewards do men gain from political activity? How do these rewards influence what they do in politics? The variable of motivation will be used to explain behavior in political institutions at the national, state, and local levels. Prerequisite: Consent of the instructor.

**Three credit hours****POL 401 Seminar in International Politics****Staff**

A study of some aspect of American political institutions and behavior. Prerequisite: Consent of the instructor. (Not offered in 1973-74)

**Three credit hours****POL 402 Seminar in Comparative Politics****Roberts**

A study of contemporary Marxism-Leninism, with emphasis on comparing the ways the different Communist countries have applied ideology to certain problems they have in common. Prerequisite: Consent of the instructor. (Not offered in 1974-75)

**Three credit hours****POL 403 Seminar in Constitutional Law****Staff**

A study of some aspect of the American judicial process. Prerequisite: Consent of the instructor. (Not offered in 1973-74)

**Three credit hours**

# Criminal Justice

Assistant Professors Donald Dahlstrom (Director), and Richard Thayer, Jr.

## PROGRAM LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN CRIMINAL JUSTICE

The Criminal Justice Program leading to a baccalaureate degree is a complete four-year program with major concentration patterns in Political Science, Sociology, and Criminal Justice sequences. The program is designed to permit each student to select a 36-hour core curriculum sequence in addition to completing all University requirements for the degree.

In addition, two academic-credit Criminal Justice Certificate programs, basic and advanced, are offered in cooperation with the Continuing Education Division (see note below). The certificate programs are designed to meet the specific needs of those students who are interested in improving their professional qualifications in areas directly related to the criminal justice system.

The objective of these programs is to provide a basis for examining various activities concerned with the process of criminal justice. Students will receive a broad liberal education in conjunction with their concentration upon specialized areas involved within the criminal justice system.

All students must elect a Criminal Justice Program major sequence:

- (1) Criminal Justice Major with a Political Science Sequence
- (2) Criminal Justice Major with a Sociology Sequence
- (3) The Criminal Justice Sequence

All Criminal Justice Program majors must complete the basic core curriculum:

CJ 101	Introduction to Criminal Justice	3
CJ 110	Criminal Law	3
CJ 120	Criminal Evidence	3
CJ 201	Administration of Criminal Justice	3
CJ 315	Police and the Community	3
CJ 316	Police-Community Practicum	3
CJ 425	Scope of Criminal Justice	3

Criminal Justice Majors with a Political Science Sequence will also be required to complete:

POL 101	Introduction to Government I	3
POL 102	Introduction to Government II	3
POL 233	The American City	3
POL 283	The American Judicial System	3
POL 284	American Civil Liberties	3

Criminal Justice Majors with a Sociology Sequence will be required to complete the core courses together with the following courses if regularly scheduled; or Sociology Sequence substitution may be arranged in consultation with the Director.

SOC 101	Introduction to Sociology	3
SOC 350	Sociology of Urban Life	3
SOC 370	Social Problems	3
SOC 371	Race and Culture Conflict	3
SOC 373	Criminology: The Adult Offender	3

The Criminal Justice Majors Sequence will require the core courses together with an additional 15 hours of credit to be selected from the following:

CJ 102	Police Administration & Personnel	3
CJ 130	Criminal Investigation	3
CJ 135	Police Operations	3
CJ 140	Criminal Information & Records Systems	3
CJ 202	Advanced Police Administration	3
CJ 210	Police Role in Social Aspects of Crime	3
CJ 390	Research in Criminal Justice	3

Elective courses in areas related to any Criminal Justice major sequence may be selected in consultation with the student's faculty advisor. Ordinarily, each student will be expected to complete from 12-18 hours of related advanced courses.

#### **NOTE: CRIMINAL JUSTICE CERTIFICATE PROGRAMS**

Additional information may be obtained from the Certificate Program brochure available through C.E.D. or Criminal Justice Program Offices. In addition, each certificate candidate who is not immediately qualified to meet university entrance requirements is strongly urged to contact the C.E.D. office and arrange for a Deferred Degree Program interview.

### **COURSE DESCRIPTIONS**

#### **CJ 101 Introduction to Criminal Justice**

Dahlstrom

An introduction to the philosophic basis and historic development of the American criminal justice system. Focus upon the role of the various components involved with due process: law enforcement, the judicial system, and corrections. Special attention will be given to basic terminology and definitions.

Three credit hours

#### **CJ 102 Police Administration and Personnel**

Thayer

A survey of organizational and administrative principles as they relate to the contemporary law enforcement agency. Areas under examination include: structure, line and staff functions, and operational techniques. In addition, the basic principles of budgeting, controlling, coordinating, planning and research will be examined with special emphasis on personnel selection and evaluation.

Three credit hours

#### **CJ 110 Criminal Law**

Staff (lawyer)

An undergraduate introduction to substantive criminal law. General doctrines of criminal liability, corpus delicti and legal classification of crimes against persons, property, and the public welfare. Emphasis on the concept of governmental sanction of individual conduct. (Offered in 1973-74 only by the Continuing Education Division)

Three credit hours

#### **CJ 120 Criminal Evidence**

Staff (lawyer)

An introduction to the rules of criminal evidence and the admissibility of evidence under the rule of law. Areas include: arrest, interview, search and seizure. Emphasis upon criminal justice procedure and the presentation of physical, documentary and testimonial evidence. (Offered in 1973-74 only by the Continuing Education Division)

Three credit hours

#### **CJ 130 Criminal Investigation**

Thayer

An introduction to the theory and practice of criminal investigation. The scientific and analytical evaluation of factual data derived from persons and things. A non-laboratory course with some emphasis on personal identification theories. Prerequisite: CJ 120.

Three credit hours

**CJ 135 Police Operations**

Staff

Theories or organization and management as they relate to law enforcement field operations; An analysis of the effectiveness of two major police functions, patrol and traffic management, are examined within an administrative framework of purpose, type and application. The future of police field operations is considered.

Three credit hours

**CJ 140 Criminal Information and Records Systems**

Thayer

The organization and administration of criminal information systems with emphasis upon design, maintenance, storage and retrieval of police records. Focus will be upon the use of data to serve operational needs for the administration of police services. In addition, methods of gathering intelligence information will be emphasized. (Offered in 1973 Fall semester only by the Continuing Education Division)

Three credit hours

**CJ 201 Administration of Criminal Justice**

Dahlstrom

An in-depth study of the administration of criminal justice in the United States. Selected topics demonstrating the function and purpose of various components effecting the administration of justice. The procedures associated with criminal justice will receive critical and constructive examination. Prerequisite: CJ 101 or instructor's permission.

Three credit hours

**CJ 202 Advanced Police Administration**

Thayer

An advanced study of supervision and leadership requirements with some focus upon comparative examination of selected police systems throughout the world. Emphasis on advanced management theory and practices as they apply to the administration of police services. Prerequisite: CJ 102 or instructor's permission.

Three credit hours

**CJ 210 Police Role in Social Aspects of Crime**

Staff

The police service's role in dealing with behavior defined as deviant and/or delinquent. Emphasis given to the significance of public policy in relationship to "victimless crimes." The handling of social and inter-personal problems by legal agents with discretionary power will be a feature of this course.

Three credit hours

**CJ 315 Police and the Community**

Dahlstrom

A study of the police service's role and responsibility within the community. Focus will be on the identification of groups existing within the community and how they relate to the police. Emphasis will be upon the organization and effectiveness of public information and crime prevention efforts.

Three credit hours

**CJ 316 Police: Community Practicum**

Dahlstrom/Staff

A community laboratory designed to provide first-hand perspectives on the police role. Activities include assignments and discussion based upon observation and evaluation of selected community service agencies and their interrelationship with the police service. Directed field work experience is a feature of this course. Prerequisite: CJ 315 or instructor's permission.

Three credit hours

**CJ 390 Research in Criminal Justice**

Dahlstrom/Staff

An independent or organized group research project or activity. May only be repeated once. Prerequisite: the director's permission.

One-three credit hours

**CJ 425 Scope of Criminal Justice**

Dahlstrom

A seminar designed for senior criminal justice majors. Focus will be upon the inter-relationship of the student's educational experience to major issues in criminal justice. Emphasis on the interdisciplinary perspective of criminal justice will be a feature of this course. Open to senior criminal justice majors or with the instructor's permission.

Three credit hours

# Psychology

Professors Paradise, Saldanha (Chairman); Associate Professors Bishop, Sanborn; Assistant Professors Hearn, Olejnik, Sytsma.

The Department of Psychology offers a four-year program for students majoring in psychology. It also includes courses for students majoring in allied fields as well as for students wishing an orientation to the field of psychology as part of their general education. Courses are designed to create an awareness of the fundamental principles of psychology, psychological research, and the means by which psychological knowledge is acquired. The emphasis is upon the scientific inquiry into basic phenomena and principles of behavior, not upon the development of professional skills.

All students are reminded that, in addition to their meeting departmental requirements for a major leading to a baccalaureate degree, they must also meet the requirements of the school or college involved, as well as the University's General Education Requirements. These general requirements are printed inside the front cover of this catalog.

The minimum requirement for a major in psychology is 32 hours (and not to exceed 45 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	4

and at least two courses from each of the following groups:

<b>Group I:</b>	PSY 350 Psychology of Learning	4
	PSY 351 Psychology of Motivation	4
	PSY 361 Sensation and Perception	4
	PSY 365 Physiological Psychology	3
<b>Group II:</b>	PSY 330 Social Psychology	3
	PSY 333 Psychopathology	3
	PSY 338 Theories of Personality	3
	PSY 343 Psychological Test Theory	3

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. No grade of D will count toward fulfillment of the major.

In addition, 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 psychology and also include in their programs study in related fields, such as mathematics, biology, philosophy, sociology, and anthropology.

## COURSE DESCRIPTIONS

### **PSY 101 General Psychology I**

Paradise, Saldanha

An introduction to the study of behavior as a natural science. Among the topics covered are: methods of inquiry, physiological foundations of behavior, sensation and perception, motivation and emotion, learning and thinking. This course is a prerequisite for all courses in the department.

Three credit hours

### **PSY 102 General Psychology II**

Paradise, Saldanha

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.

Three credit hours

### **PSY 199 Child Psychology: Physical and Intellectual Development**

Olejnik

Physiological, sensory, and motor development of the child from infancy up to adolescence with emphasis on cognitive development in concept formation and language. Prerequisites: PSY 101 and 102.

Three credit hours

### **PSY 201 Statistics in Psychology**

Hearns

A general introduction to the techniques of descriptive, predictive, and inferential statistics. Emphasis is placed on measures of central tendency and variability, correlation, hypothesis testing, and simple analysis of variance. Prerequisite: PSY 101.

Three credit hours

### **PSY 205 Experimental Methodology**

Hearns

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. Laboratory exercises provide experience in collecting and reporting data. Prerequisite: PSY 201.

Four credit hours

### **PSY 220 Developmental Psychology**

Bishop

An overview of psychological concepts of significance during the life span of the individual. Selected areas of child, adolescent, adult, and geriatric psychology are included. This course is not open to students who have completed, or who are currently enrolled in, either PSY 223 or PSY 224. Prerequisites: PSY 101 and 102.

Three credit hours

### **PSY 223 Psychology of Childhood**

Sanborn

A systematic study of the child's behavior and psychological development. Emphasis upon principles underlying development, methods of child study, and practical implication. Prerequisites: PSY 101 and 102.

Three credit hours

### **PSY 224 Psychology of Adolescence**

Sanborn

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.

Three credit hours

### **PSY 232 Mental Hygiene**

Sanborn

A consideration of the fundamental factors in human adjustment with emphasis upon the prevention of inadequate adjustments and upon the processes by which maladjusted individuals may be restored to normal living. Family and educational situations will be emphasized. Prerequisites: PSY 101 and 102.

Three credit hours

### **PSY 299 Child Psychology: Personality and Social Development**

Olejnik

The development of the child's personality and socialization of the various aspects of the child's behavior. Prerequisites: PSY 101 and 102.

Three credit hours

**PSY 311 Industrial Psychology****Hearns**

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. Three credit hours

**PSY 320 Psychology of Personality****Paradise**

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 and 102. Three credit hours

**PSY 326 Mental Deficiency****Bishop**

The identification and description of various types and levels of mental retardation. Problems in assessment, treatment, and education of the retarded are also stressed. Prerequisite: PSY 220 or PSY 223. Three credit hours

**PSY 330 Social Psychology****Bishop**

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. Three credit hours

**PSY 333 Psychopathology****Bishop**

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. Three credit hours

**PSY 335 Deviations of Childhood****Bishop**

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 220 and permission of the instructor. Three credit hours

**PSY 338 Theories of Personality****Bishop**

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. Three credit hours

**PSY 343 Psychological Test Theory****Bishop**

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. Three credit hours

**PSY 350 Psychology of Learning****Sytsma**

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. Four credit hours

**PSY 351 Psychology of Motivation****Paradise**

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 205 and 201. Four credit hours

**PSY 360 Human Learning**

Paradise

Basic principles of learning as they relate to human behavior. Consideration of such areas as acquisition of knowledge, retention, forgetting, problem solving, concept formation, thinking, transfer of training. Interrelates learning with perception and motivation. Some consideration of learning theories. Prerequisites: PSY 101 and 102. Three credit hours

**PSY 361 Sensation and Perception**

Paradise

An examination of perceptual processes in selected sensory systems. Emphasis on experimental methodology, research findings, and theoretical interpretations. Prerequisite: PSY 201. Four credit hours

**PSY 365 Physiological Psychology**

Sytsma

Basic neuroanatomy, neurophysiology, and endocrinology, and the relationships between nervous system functioning and behavior. Physiological analysis of sensory function, motivation, and learning. Prerequisites: BIO 101 or BIO 111, PSY 111, 102. Three credit hours

**PSY 366 Comparative Psychology**

Sytsma

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.

**PSY 370 Engineering Psychology**

Hearns

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. Three credit hours

**PSY 371 History and Systems of Psychology**

Saldanha

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. Prerequisites: PSY 101 and 102 and permission of the instructor. Three credit hours

**PSY 375 Psychology of Thinking**

Saldanha

An analysis of experimental studies of concept formation, problem solving, reasoning, creativity, and related topics. Prerequisites: PSY 101 and 102 and permission of the instructor. Three credit hours

**PSY 400 Research in Psychology I**

Staff

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. Three credit hours

**PSY 401 Research in Psychology II**

Staff

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. (Fall and Spring) Three credit hours

**PSY 490 Senior Seminar in Psychology**

Olejnik

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 departmental chairman. Three credit hours

**PSY 521 Individual Psychological Testing**

Bishop

Intensive training in the administration, scoring, and interpretation of the Stanford Binet form L-M and the 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. Three credit hours



# Social Welfare

Professor Romanyshyn (Chairman); Associate Professor Steinman; Assistant Professors T. Baily, W. Baily, Kreisler; Instructors Finkelhor, Ladley.

The major in Social Welfare consists of an inter-disciplinary course of study which includes at least 15 hours of social sciences and humanities to be individually elected by the student and planned with the adviser. The program leads to a B.A. degree in Social Welfare and is approved by the Council on Social Work Education.

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. These general requirements are printed inside the front cover of this catalog.

## REQUIRED COURSES

		<i>Credit hours</i>
SWE 101 and 102	Introduction to the Human Services I & II	6
SWE 252 and 253	Methods of Social Work Practice I & II	6
SWE 254 and 255	Community Laboratory in Social Welfare I & II	VAR
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 456	Issues in Social Welfare and Social Work	3

24 + VAR

Note: Students may elect a minimum of 4 and a maximum of 16 hours of credit in SWE 254 and 255, combined. The above requirements are for students who enter the major in 1973-74. The requirements for students who began their major prior to 1973-74 should be discussed with their advisors.

## COURSE DESCRIPTIONS

### **SWE 101 Introduction to the Human Services I**

W. Baily

An orientation to careers in the human services and an introduction to the organization and functions of community agencies and programs, through lecture, discussion, and volunteer experiences.

Three credit hours

### **SWE 102 Introduction to the Human Services II**

W. Baily

A continuation of SWE 101.

Three credit hours

### **SWE 252 Methods of Social Work Practice I**

T. Baily, Steinman

An introduction to concepts and beginning skills for intervening with individuals, families, groups, neighborhoods, organizations, or communities with the goal of producing some level of social change consistent with the aspirations of both the system to be changed and the intervenor. Emphasizes theories of human and community development

Three credit hours

### **SWE 253 Methods of Social Work Practice II**

T. Baily

A continuation of SWE 252.

Three credit hours

### **SWE 254 Community Laboratory I**

Finkelhor, Kreisler, Ladley

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 8 per semester. Prerequisites: SWE 101 and 102; 252 and 253 (concurrent).

### **SWE 255 Community Laboratory II**

Finkelhor, Kreisler, Ladley

A continuation of SWE 254.

Variable credits

**SWE 350 Social Problems and Social Welfare Policy**

Romanyshyn

A critical examination of social welfare institutions and the social problems and social needs to which they are addressed. Prerequisite: at least six hours of social science.

Three credit hours

**SWE 351 Human Services and the Consumer**

Steinman

Study and critical evaluation of the bureaucracies, professions, and consumers of social work and other services. Prerequisite: SWE 350.

Three credit hours

**SWE 352 Methods of Social Work Practice III**

Staff TBA

An advanced course in social work theory and practice. Prerequisite: SWE 252 and 253.

Two credit hours

**SWE 353 Methods of Social Work Practice IV**

Staff TBA

A continuation of SWE 352.

Two credit hours

**SWE 354 Community Laboratory III: Community Organization in Field Practice**

Kreiser

An advanced field experience concentrating on methods of helping people to effect community and organizational change in urban or rural areas. Prerequisites: SWE 254 and 255. Variable credits ranging from 2 through 8 per semester, provided that when totalled with credits earned in SWE 254, 255, and 355, the total, including this course, does not exceed 22.

**SWE 355 Community Laboratory IV**

Staff TBA

An advanced field experience in an urban or rural neighborhood, or in a social agency placement. Variable credits, same as SWE 354.

**SWE 365 Social Work with Minority Groups**

Staff TBA

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.

Three credit hours

**SWE 370 Human Development and Social Welfare**

Staff TBA

A study of the implications of research and theory related to human development for social welfare policy and social work practice. Prerequisites: PSY 220 and at least six hours of social welfare courses.

Three credit hours

**SWE 374 Aging and Social Policy: A Cross-Cultural View**

Steinman

This course will examine the similarities and the differences in how both simple and complex societies treat the process of aging. With this perspective, the course will then look at the position of older Americans in relation to various social institutions and at the origin and implementation of social policies affecting them. Prerequisite: SWE 101 or permission of instructor.

Three credit hours

**SWE 375 Developmental Services to the Aging**

Steinman

A study of policy, administration, and implementation of human services to older people with a focus on a developmental view of aging. Prerequisite: SWE 101 or permission of instructor. SWE 374 recommended but not required.

Three credit hours

**SWE 380 Child Welfare**

T. Baily

A study of the process of growing up under handicapping social conditions and the implications for social services and institutional change. Prerequisite: six hours of social welfare courses.

Three credit hours

**SWE 385 Self-Assessment**

Finkelhor

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.

Three credit hours

**SWE 397 Department Projects**

Romanyshyn, Staff

Individual or group projects, requiring independent study of some aspect of social welfare, to be selected by students in consultation with faculty. Prerequisite: department permission.

Three credit hours

**SWE 455 Social Welfare Research**

W. Baily, Steinman

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.

Three credit hours

**SWE 456 Issues in Social Welfare and Social Work**

Romanyshyn

Senior seminar for social welfare majors that seeks to integrate class and field experience. Open to others with permission only.

Three credit hours

# Sociology

Professors Lacognata; Associate Professors Anspach (Chairman), Giguere, Monsen; Assistant Professors Fullam, Grzelkowski, Humphries.

The Department of Sociology offers a major in Liberal Arts.

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. These general requirements are printed inside the front cover of this catalog.

## REQUIRED COURSES

The minimum requirement for a major in the department is 36 hours of sociology, which must include the following:

	<i>Credit hours</i>
SOC 101 Introduction to Sociology	3
SOC 300 Sociological Theory	3
SOC 301 Statistical Methods for Social Research	4
SOC 302 Methods of Social Research	4
SOC 400 Theory Construction	3
SOC 401 Senior Seminar	3

In addition, each major is required to take at least one course from each of the following areas:

SOC 310 – SOC 319 Social Processes	3
SOC 330 – SOC 339 Social Institutions	3
SOC 350 – SOC 359 Units of Social Life	3
SOC 370 – SOC 379 Social Problems	3

In addition to the 36 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 101 Introduction to Sociology

Staff

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.

Three credit hours

### SOC 300 Sociological Theory

Anspach

A critical examination of the sociological theories of such people as Marx, Weber, and Durkheim; and contemporary theorists such as Parsons and Merton. Prerequisite: SOC 101 and two other SOC courses.

Three credit hours

**SOC 301 Statistical Methods for Social Research**

Emphasis on the uses of statistics in the organization, interpretation, and presentation of research data. Measures of association and correlation; testing of hypotheses; probability and sampling. Includes one hour per week of laboratory exercises. Prerequisite: SOC 101. Four credit hours

**SOC 302 Methods of Social Research****Monsen**

Conceptualization and research design; data collection and data analysis; logic of inquiry and research techniques. Includes one hour per week of laboratory exercises. Prerequisites: SOC 101 and SOC 301. Four credit hours

**SOC 310 Social Change****Giguere**

Analysis of sociocultural factors related to social change and the dynamics of the change process. Prerequisite: SOC 101. Three credit hours

**SOC 311 Sociology of Adolescence****Anspach**

The social behavior of adolescents, the development of adolescent culture, and the involvement of adolescents in the various social systems and the class structure of society. Prerequisite: SOC 101. Three credit hours

**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 101. Three credit hours

**SOC 313 Human Ecology****Staff**

Spatial distribution of human beings and related activities and social processes; contemporary ecological problems. Prerequisite: SOC 101. Three credit hours

**SOC 314 Social Control****Staff**

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 101. Three credit hours

**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 101. Three credit hours

**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 101. Three credit hours

**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 101. Three credit hours

**SOC 332 Industrial Sociology****Staff**

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 101. Three credit hours

**SOC 333 Sociology of Medicine**

Humphries

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 101.

Three credit hours

**SOC 334 Sociology of Religion**

Staff

Religion as a social institution. Attention is given to the social correlates of religion and the functions of religion in society. Prerequisite: SOC 101.

Three credit hours

**SOC 350 Sociology of Urban Life**

Giguere

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 101.

Three credit hours

**SOC 351 The Individual and the Community**

Staff

Analysis of the function and the structure of the community. Emphasis on the ways in which individuals and groups are affected by community dynamics. Group processes, leadership, programmed planning, and development are stressed. Community project. Prerequisite: SOC 101.

Three credit hours

**SOC 352 Population Dynamics**

Giguere, Lacognata

General demographic theories, especially those concerning population growth. Population distribution and density; age, sex, and ethnic composition. Emphasis on fertility, mortality, and migration and their influence on population change. Prerequisite: SOC 101.

Three credit hours

**SOC 353 Collective Behavior and Social Movements**

Monsen

Unstructured social behavior, e.g. crowds, mobs, riots. The rise and development of social movements emphasizing structuring and institutionalization. Prerequisite: SOC 101.

Three credit hours

**SOC 354 Small Group Analysis**

Staff

Communication and interaction patterns within small groups are identified and analyzed. Course involves observation of and participation in such interaction. Prerequisite: SOC 101.

Three credit hours

**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 101.

Three credit hours

**SOC 356 Social Organization**

Staff

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 101.

Three credit hours

**SOC 357 Formal Organization**

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. Prerequisite: SOC 101.

Three credit hours

**SOC 358 Sociology of Rural Life**

Staff

Significance of rural society in American culture. The impact of forces of change, including population movement. The significance of changes in the institutions of family, religion, education, and stratification. Prerequisite: SOC 101.

Three credit hours

**SOC 370 Social Problems**

Staff

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 101. Three credit hours

**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 101. Three credit hours

**SOC 372 Juvenile Delinquency**

Humphries

The problem of adolescents in modern society. Discontinuities of teenage roles; influence of various subcultures on patterns of behavior. Prerequisite: SOC 101. Three credit hours

**SOC 373 Criminology**

Humphries

The social and cultural factors in the causation of crime among adults; organized crime as a social phenomenon in American life; specific types of criminal careers; legal and judicial aspects of crime. Prerequisite: SOC 101. Three credit hours

**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 101. Three credit hours

**SOC 375 Social Disorganization**

Fullam

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 101. Three credit hours

**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. Three credit hours

**SOC 397 Department Projects I**

Staff

Independent reading and/or research for juniors and seniors. Apply to department chairman. Prerequisite: 15 hours in sociology. Two or three credit hours

**SOC 398 Department Projects II**

Staff

Continuation of independent reading and/or research for juniors and seniors. Apply to department chairman. Prerequisite: SOC 397. Two or three credit hours

**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. Three credit hours

**SOC 401 Senior Seminar**

Anspach

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. Three credit hours

# Theatre/Communications

Professor Hansen; Associate Professors Rootes, Stump, Whiting; Assistant Professors Duclos, Pic'l (Chairman), Power, Steele.

Undergraduates desiring to major in Theatre/Communications may do so in either the Bachelor of Arts program of the College of Liberal Arts, or under programs leading to the degree of Bachelor of Science in the School of Education.

All students are reminded that, in addition to meeting departmental requirements for a major, they must also meet the University's General Education Requirements.

## **REQUIRED COURSES FOR A MAJOR IN THEATRE/COMMUNICATIONS IN THE COLLEGE OF LIBERAL ARTS**

Theatre/Communications majors desiring a Bachelor of Arts degree are required to complete 36 hours of theatre and/or communications courses, which are to include TC 100 (Research in Theatre/Communications) and TC 101 (Introduction to Theatre) or TC 102 (Introduction to Communications). Additionally the major is required to take 15 hours from any one of the Allied Areas designated as such below, or the student may design a specialty area by selecting 15 hours from across the array of courses listed under Allied Areas. Courses at the 200 level or above not listed in Allied Areas may be accepted for major credit with the permission of the student's TC faculty advisor. Students are reminded that prerequisites to courses in Allied Areas must be satisfied as prescribed by the appropriate Department, School, or College.

## **REQUIRED COURSES FOR A MAJOR IN THEATRE/COMMUNICATIONS IN THE SECONDARY EDUCATION PROGRAM OF THE SCHOOL OF EDUCATION**

Theatre/Communications majors desiring a secondary credential are required to complete 36 hours of theatre and communications courses, to include TC 100 (Research in Theatre/Communications), TC 101 (Introduction to Theatre), and TC 102 (Introduction to Communications). At least 15 additional hours must be selected from courses designated TC. To complete this TC major the remaining 12 hours or less may be selected from Allied Areas or from courses at the 200 level or above in any UMPG School or College, with permission of the student's TC faculty advisor. Students are reminded that prerequisites to courses in Allied Areas must be satisfied as prescribed by the appropriate Department, School, or College.

## **REQUIREMENTS FOR MINORS**

Theatre/Communications minors are required to complete 18 hours of courses designated TC, to include TC 100, and TC 101 or TC 102.

## ALLIED AREAS FOR MAJORS EMPHASIZING COMMUNICATIONS

	<i>Course</i>	<i>Cr.</i>	<i>Prerequisites</i>
<b>EXPERIMENTAL STUDIES IN COMMUNICATIONS</b>			
MS 116	An Introduction to Computer Systems	3	3 yrs. H. S. math
MS 120	Statistical Inference	3	2 yrs. H. S. algebra
MS 364	Statistical Methods for Research	3	MS 120
MS 365	Design of Experiments	3	—
<b>COMMUNICATIONS AND LANGUAGE</b>			
ENG 381	Modern Grammars	3	—
ENG 382	Introduction to Linguistics	3	—
ENG 384	Structural Linguistics and Culture	3	Soph. and above
ENG 387	Semantics	3	—
<b>PSYCHOLOGY OF COMMUNICATIONS</b>			
PSY 320	Psychology of Personality	3	PSY 101, 102
PSY 330	Social Psychology	3	PSY 101, 102
PSY 360	Human Learning	3	PSY 101, 102
PSY 375	Psychology of Thinking	3	PSY 101, 102 or permission
SOC 314	Social Control	3	SOC 101
SOC 354	Small Group Analysis	3	SOC 101
<b>COMMUNICATION IN BUSINESS</b>			
BUS 340	Elements of Industrial Management	3	ECON 101, 102
BUS 346	Personnel Management	3	BUS 340
BUS 348	Industrial Relations	3	BUS 340 or 346
BUS 352	Dynamics of Organization and Behavior	3	ECON 101, 102
BUS 380	Business Law	3	Junior-Senior
PSY 311	Industrial Psychology	3	PSY 101, 102
<b>COMMUNICATION IN POLITICS AND LAW</b>			
POL 251	Public Administration	3	—
POL 257	Political Parties	3	POL 101, 102
POL 258	Public Opinion	3	POL 101, 102
POL 283	The American Judicial System	3	POL 101
POL 305	Judicial Decision-Making	3	Permission
POL 358	The American Congress	3	POL 101 or 102
CJ 201	Administration of Criminal Justice	3	CJ 101
<b>COMMUNICATIONS AND PHILOSOPHY</b>			
PLY 101-105	Introduction to Philosophy: Any two	3 (each)	—
PLY 200	Symbolic Logic	3	PLY 100 level
PLY 210	Ethical Theories	3	PLY 100 level
PLY 230	Philosophy of Religion	3	PLY 100 level
PLY 240	Political Philosophy	3	PLY 100 level
PLY 250	Philosophy of Science	3	PLY 100 level
PLY 360	Existentialism	3	PLY 100 level



## ALLIED AREAS FOR MAJORS EMPHASIZING THEATRE

<i>Course</i>	<i>Cr.</i>	<i>Prerequisites</i>
<b>ART</b>		
ARTH 102 Film as Image and Idea	3	—
ARTS 141 Design I	3	—
ARTS 142 Design II	3	ARTS 141
ARTS 151 Drawing I	3	—
ARTS 152 Drawing II	3	ARTS 151
ARTS 363 Watercolor	3	Art core courses
<b>DANCE</b>		
DNCE 300 Contemporary Dance I	1	—
DNCE 301 Contemporary Dance II	1	DNCE 300
DNCE 302 Contemporary Dance III	1	DNCE 301
DNCE 303 Contemporary Dance IV	1	DNCE 302
<b>ENGLISH</b>		
ENG 242 Shakespeare I	3	—
ENG 243 Shakespeare II	3	ENG 242
ENG 246 British Drama to 1642	3	Permission
ENG 266 Restoration Drama	3	—
CPEN 372 Greek Epic, Tragedy, and Comedy	3	—
<b>FOREIGN LANGUAGES AND CLASSICS</b>		
CLS 252 The Tragic Hero in Ancient Literature	3	—
FRE 264 Avant-Garde Theatre in France	3	—
FRE 303 French Theatre in the 20th Century	3	FRE 231
<b>HISTORY</b>		
HIST 101 Western Civilization I	3	—
HIST 102 Western Civilization II	3	—
<b>MUSIC</b>		
MUS 100 Music Appreciation and History	3	—
MUS 202 Music in America	3	—
MUS 401 Gorham Chorale	½	—
MUS 403 A Cappella Choir	½	—
MUS 405 The Chamber Singers	½	—
MUS 142 Recital Class for Freshmen I	½	—
MUS 143 Recital Class for Freshmen II	½	MUS 142
MUS 242 Recital Class for Sophomores I	½	—
MUS 243 Recital Class for Sophomores II	½	MUS 242
MUS 342 Recital Class for Juniors I	½	—
MUS 443 Recital Class for Seniors II	½	—

<i>Course</i>		<i>Cr.</i>	<i>Prerequisites</i>
<b>PHILOSOPHY</b>			
PLY 220	Aesthetics	3	PLY 100 level
<b>EDUCATION</b>			
EDU 310	Prep. of Classroom Instructional Materials	3	Lab fee \$7.50
EDU 311	Advanced Production of A-V Material	3	Lab fee \$7.50
EDU 449	Photography for Classroom Use	3	—
<b>INDUSTRIAL ARTS</b>			
IA 210	Electronics Technology	—	—
IA 313	Electrical Construction	3	—
IA 130	Graphic Communication	3	—
IA 241	Graphic Arts Technology	3	—
IA 444	Photographic Reproduction	3	IA 342
IA 363	Wood Science	3	IA 260 or permission



## COURSE DESCRIPTIONS

### COMMUNICATIONS

#### TC 100 Research

Staff

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.  
Three credit hours

**TC 102 Introduction to Communications****Pic'l**

A lecture-discussion course designed to provide students with a conceptual framework of the basic elements of communications. Topics discussed will include the history and criticism of public address, communication theories, types of communications, educational practices and related topics germane to communications. Course includes a discussion of career and professional options for communications majors.

**Three credit hours****TC 150 Business Communications****Whiting**

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

**Three credit hours****TC 170 Public Speaking****Staff**

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.

**Three credit hours****TC 171 Interpersonal Communication****Pic'l**

A lecture-discussion course designed to acquaint the student with the elemental components of speech communication, its basic nature and function. The course involves a study of the potential of human speech 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.

**Three credit hours****TC 172 Parliamentary Procedure****Pic'l**

A lecture-performance course in the conduct of organizational procedures, including the framing of constitution, conduct of assembly and committee meetings, and related topics.

**One credit hour****TC 175 Intercollegiate Forensics I****Pic'l, Stump**

Participation in intercollegiate competitive speaking activities, including debate, extemporaneous speaking, impromptu, oral interpretation and persuasion. Emphasis is placed upon preparation and execution.

**One to three credit hours****TC 176 Intercollegiate Forensics II****Pic'l, Stump**

A continuation of TC 175. Prerequisite: TC 175.

**One to three credit hours****TC 177 Intercollegiate Forensics III****Pic'l, Stump**

A continuation of TC 176. Prerequisite: TC 176.

**One to three credit hours****TC 178 Intercollegiate Forensics IV****Pic'l, Stump**

A continuation of TC 177. Prerequisite: TC 177.

**One to three credit hours****TC 271 Argumentation****Pic'l**

A lecture-discussion-performance 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.

**Three credit hours****TC 272 Persuasion****Pic'l**

A lecture-discussion-performance course in art of influencing human behavior by means of speech 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. Practice in persuasive speaking.

**Three credit hours**

**TC 290 Oral Interpretation****Staff**

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.

Three credit hours

**TC 380 Rhetorical Theory****Staff**

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 speech course.

Three credit hours

**TC 390 Advanced Oral Interpretation****Staff**

An intensive study of the theory and techniques involved in the interpretation of prose, poetry, and drama. Oral Interpretation will be treated as an art form here and emphasis will be placed upon performance. Prerequisite: TC 290.

Three credit hours

**TC 420 Communications and Cognition****Pic'l**

A lecture-discussion course designed to explore the relationships and interactions of the communications 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 communications and cognition. Prerequisites: Junior, Senior or permission. (Not offered in 1973-74)

Three credit hours

**TC 433 Project I****Staff**

Investigation of special topics, or execution of special projects which fall within the purview of theatre and/or communications. 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.

Three credit hours

**TC 434 Project II****Staff**

A continuation of TC 433.

Three credit hours

## **THEATRE**

**TC 100 Research****Staff**

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.

Three credit hours

**TC 101 Introduction to Theatre****Staff**

A lecture-discussion course designed to provide students with a conceptual framework of basic elements of theatre. Topics discussed will include theatre history and criticism, acting, directing, producing, stage craft, and other topics pertinent to theatre and drama. Course includes a discussion of career and professional options for theatre majors.

Three credit hours

**TC 120 Fundamentals of Acting****Staff**

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.

Three credit hours

- TC 130 Theatre Workshop I** **Staff**  
 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. One credit hour
- TC 131 Theatre Workshop II** **Staff**  
 A continuation of TC 130. Prerequisite: TC 130. One credit hour
- TC 132 Theatre Workshop III** **Staff**  
 A continuation of TC 131. Prerequisite: TC 131. One credit hour
- TC 133 Theatre Workshop IV** **Staff**  
 A continuation of TC 132. Prerequisite: TC 132. One credit hour
- TC 134 Play Production** **Staff**  
 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. Three credit hours
- TC 135 Stage Craft** **Staff**  
 A lecture-discussion-performance course in technical theatre encompassing scene design, lighting, costuming, properties, and similar topics relevant to technical direction. Three credit hours
- TC 274 Journalistic Drama Criticism** **Steele**  
 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: TC 134. Three credit hours
- TC 275 Advanced Journalistic Drama Criticism** **Steele**  
 A continuation of TC 274. Prerequisites: TC 134 and 274. Three credit hours
- TC 320 Advanced Acting** **Staff**  
 Designed to broaden the basic skills of the actor in achieving theatrical effectiveness through an individualized examination of the actor's problems and the actor's techniques in the approach to a role. Emphasis on scene work plus movements associated with period styles. Prerequisite: TC 120. Three credit hours
- TC 330 Stage Lighting** **Staff**  
 Introduction to stage lighting design, elements of electricity, color, light sources, instrumentation, and control systems. Student will participate in lighting projects in practicum. Prerequisites: TC 134 and TC 135. Three credit hours
- TC 331 Scene Design** **Rootes**  
 Lecture and practicum in stage scenic design. Emphasis on the visual art and drafting of designs. Prerequisites: TC 134 and TC 135. Three credit hours
- TC 332 Fundamentals of Directing** **Staff**  
 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: TC 100, 101, 120, 134 and 135; Junior. Three credit hours
- TC 334 Stage Costuming** **Rootes**  
 Introductory course to stage costume design, construction, and organization. Student will be required to work costumes on a current production as practicum. Prerequisites: TC 101, 134 and 135. Three credit hours

**TC 335 Playwriting****Stump**

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 the writing of a one-act play. Prerequisites: TC 101 and TC 361 or 362 or 363.

Three credit hours

**TC 340 History of the Theatre I****Staff**

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

Three credit hours

**TC 341 History of the Theatre II****Staff**

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

Three credit hours

**TC 361 Late 19th Century Drama of the Western World****Staff**

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: TC 101 or 340 or 341.

Three credit hours

**TC 362 20th Century Drama of the Western World****Staff**

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: TC 101, 340, and 341.

Three credit hours

**TC 363 Contemporary Avant-Garde Drama****Staff**

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: TC 101, 340 and 341.

Three credit hours

**TC 432 Advanced Directing****Staff**

A continuation of TC 332. Prerequisite: TC 332 or permission.

Three credit hours

**TC 433 Project I****Staff**

Investigation of special topics, or execution of special projects which fall within the purview of theatre and/or communications. 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.

Three credit hours

**TC 434 Project II****Staff**

A continuation of TC 433.

Three credit hours

**TC 450 Dramatic Theory****Hansen**

A study of the development of comedy and tragedy through readings in classic and modern criticism. Includes melodrama and farce, and the merging of all modes in the modern theatre. Consideration of leading philosophical theories and their bearings on the theatre. Prerequisites: TC 101, 340 and 341.

Three credit hours

**TC 460 American Drama****Stump**

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.

Three credit hours

# School of Business and Economics

JOHN W. BAY, Dean

**Department of Associate Business Administration:** Associate Professors Andrews, McKeil (Chairman); Assistant Professors Annett, Taylor; Lecturer Emanuelson.

**Department of Business Administration:** Professors Findlay (Chairman), Fitzpatrick, Siedlik, Waters; Associate Professors Hall, Jagolinzer (On leave 1973-74); Assistant Professors Chandler, Hodson, Manck; Lecturer Plowman.

**Department of Economics:** Professor Durgin; Associate Professors Bay, McMahon, Witherill; Assistant Professor Bien (Chairman).

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, and to provide a sound foundation for those students who perform well and who wish to transfer to the four-year business administration program here or at another institution.

While the program emphasizes business, it contains some courses in liberal studies such as English composition, literature, communications, public speaking, human relations, and mathematics. Within the business areas some electives are available for selection by the student according to individual interests and desires.

Students admitted to the associate degree program pursue the following curriculum during their two years.

### ASSOCIATE DEGREE PROGRAM

#### The Freshman Year

BUS 11 and BUS 12	Principles of Accounting .....	6
ECON 11 and ECON 12	Principles of Economics .....	6
ENG 11	Composition .....	3
ENG 120	Introduction to Literature .....	3
BUS 95	Business and Society .....	3
TC 150	Business Communications or	
TC 170	Public Speaking .....	3
MS 10 and MS 11	Mathematical Analysis for	
	Business Decisions or	
MS 109 and MS 110	Linear Systems and Elementary	
	Mathematical Analysis .....	6

NOTE: Students in the ABA program will complete ENG 11 on a pass-fail basis or receive credit by examination.

## The Second Year

### FALL SEMESTER

BUS 40 Elements of Industrial Management .....	3
BUS 60 Marketing .....	3
BUS 90 Business Data Processing .....	3
Elect one of the following:	
BUS 93 Human Relations in Business .....	3
ENG 19 Expository Writing .....	3
Elect one of the following:	
BUS 15 Intermediate Accounting ..	3
BUS 20 Business Finance .....	3

### SPRING SEMESTER

BUS 43 Problems of Small Business ..	3
BUS 80 Business Law .....	3
Elect one of the following:	
BUS 93 Human Relations in Business .....	3
ENG 19 Expository Writing .....	3
Elect one of the following:	
BUS 64 Retailing .....	3
BUS 67 Sales Management .....	3
Students may continue with their first semester selection:	
BUS 16 Intermediate Accounting ....	3
BUS 21 Business Finance .....	3
or	
BUS 30 Investment Management ....	3

MS 109 and MS 110 or MS 211 and MS 212 can be substituted for BUS 43 and BUS 64 or BUS 67. In that case the student takes BUS 93 and ENG 19 in the spring.

Upon completion of the 60 hour program 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.

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.

## 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 liberal 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, business data processing, 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 18 credit hours beyond the core program.

The Department of Business Administration 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. 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 chairman of the Department of Business Administration.

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.

Students majoring in economics may participate in the Cooperative Education Program of the Department of Business Administration.

### **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

Six hours of interdisciplinary studies

Twelve hours of humanities

Six hours of fine and applied arts

Twelve hours of social sciences

Twelve hours of mathematics

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 Introductory Accounting  
 BUS 320 Business Finance  
 BUS 340 Elements of Industrial Management  
 BUS 360 Marketing  
 BUS 380 Business Law  
 BUS 385 Business Economics  
 BUS 390 Business Data Processing
- C. Major Field Requirements 18 credit hours  
 Accounting Major  
 BUS 301 Intermediate Accounting I  
 BUS 302 Intermediate Accounting II  
 BUS 305 Cost Accounting  
 BUS 310 Advanced Accounting  
 BUS 410 Auditing  
 Elect either:  
 BUS 311 Advanced Accounting  
 BUS 313 Federal Tax Reporting  
 Business Administration Major  
 BUS 102 Financial and Management Accounting  
 BUS 330 Investment Management  
 BUS 370 Managerial Marketing  
 BUS 450 Business Management and Policy  
 Six hours of Business or Economics Electives
- D. Electives

### ADDED REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE IN ECONOMICS

- A. General Foundation Courses 36 credit hours  
 Six hours of interdisciplinary studies  
 Six hours of humanities  
 Six hours of fine and applied arts  
 Six hours of social sciences  
 Twelve hours of mathematics  
 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 150, MS 151, MS 250, and MS 251 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 150 and MS 151 can substitute those two courses for MS 109 and MS 110. They still must take MS 211 and MS 212.)  
 It is recommended that students who have writing deficiencies take either ENG 001, Writing Laboratory, or ENG 100, College Writing. Students having difficulty in oral communication should take TC 150, Business Communications.
- 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 Introductory 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.

In cooperation with the School of Education, the School of Business and Economics offers (1) an Economics Major and Economics Minor leading to the degree of Bachelor of Science in Education for students in the School of Education who wish to prepare themselves to teach economics in public and private schools, and (2) a Social Science Area Major with Concentration in Economics leading to the degree of Bachelor of Science in Education for students in Secondary Education wishing to prepare themselves to teach economics in secondary school in addition to other social sciences including history, geography, and political science. This latter program is described in the section of the catalog dealing with the department of Geography-Anthropology, where other Social Science Area majors are listed.

Details concerning the Economics Major and Economics Minor programs for students in the School of Education are listed below.

### REQUIREMENTS FOR AN ECONOMICS MAJOR OR AN ECONOMICS MINOR FOR STUDENTS IN THE SCHOOL OF EDUCATION

#### Criteria For Admission And Retention Of Students

Admission to the Education program by the School of Education plus a minimum of "C" grades in Economics courses.

#### Secondary Education – Economics Major

<i>Requirements and Content</i>	<i>Credit Hours</i>
ECON 101 and 102 Principles of Economics	6
MS 120 Statistical Inference	3
ECON 301 and 302 Intermediate Micro and Macro Theory	6
ECON 350 Comparative Economic Systems	3
EC ED 300 Economic Concepts and Resource Materials for Educators	3
Additional Economic Electives	15
Total	36

Secondary Education — Economics Majors will do practice teaching in the field of economics, if possible, and will meet all other requirements of the University and the School of Education.

#### Elementary and Secondary Education – Economics Minor

ECON 101 and 102 Principles of Economics	6
ECON 201 Current Economic Problems	3
ECON 350 Comparative Economic Systems	3
EC ED 300 Economic Concepts and Resource Materials for Educators	3
Additional Economic Electives	6
Total Credits	21

Economics Minors will also meet all other requirements of the University and the School of Education.

## MASTER OF BUSINESS ADMINISTRATION

Since the fall of 1964 the School of Business and Economics at the University of Maine at Portland-Gorham 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 Graduate Admissions Committee at the University of Maine at Portland-Gorham 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. All applicants for the M.B.A. program must submit scores obtained on the Admission Test for Graduate Study in Business (ATGSB) which is administered by the Educational Testing Service, Princeton, New Jersey.

For regular admission to the M.B.A. program the student should have (1) a score of 450 or above on the ATGSB, and (2) a four year grade point average of 2.5 or above, or a junior-senior grade point average of 2.75 or above.

An application is not complete until all the required transcripts, ATGSB 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 study. All application material becomes the property of the University of Maine.

## 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 re-classified 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 of Maine at Portland-Gorham.

**Transient.** A person enrolled in any other graduate program at the University of Maine 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)	Finance	(3 hours)
Business Law	(3 hours)	Management	(3 hours)
Calculus	(3 hours)	Marketing	(3 hours)
Economics	(9 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 206, 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.

A grade of "I" (deficient), a temporary grade given when the student, because of extraordinary circumstances, has failed to complete required work, must be completed and a grade submitted in the semester following the semester in which the "I" grade was received. An "I" which is not removed during this period becomes an "F".

A withdrawal while passing (WP) is an approved withdrawal from a course, after the end of the first ten weeks, when the student is doing satisfactory work to the date of recommendation for the withdrawal. The WP grade is not considered in grade-point average computation.

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 (6) hours of "C" grades towards any requirements of the M.B.A. taken after being admitted to the program.

If a student receives a grade of "D" in a required course, the student must retake 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 the course is repeated, both grades remain on the transcript but only the last grade applies to the grade point average.

A grade of "F" in any course will constitute cause for automatic dismissal from the program.

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 (15) 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 (15) 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 (1) academic year or by the completion of fifteen (15) 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 (9) 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 UMPG 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 of Maine at Portland-Gorham 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 UMPG. In any case involving transfer credit, a minimum of eighteen (18) hours must be taken at UMPG in order to obtain the M.B.A. degree from UMPG. 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 UMPG 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 11 Principles of Accounting I**

McKeil

An introduction to accounting concepts, principles, and practices. Emphasis on the preparation and interpretation of statements for financial and management uses as well as the measurement of assets, liabilities, equity, revenues, and expenses. Three credit hours

### **BUS 12 Principles of Accounting II**

McKeil

An introduction to the accounting for partnerships, corporations, and manufacturing. Emphasis on analysis and interpretation of accounting data for management planning and control. Prerequisite: BUS 11. Three credit hours

### **BUS 15 Intermediate Accounting I**

Hall

An intensive study of accounting theory including the accounting for corporate capital, investment in securities, cash, receivables, and liabilities. Prerequisites: BUS 11 and BUS 12. Three credit hours

**BUS 16 Intermediate Accounting II**

Hall

The study of accounting theory including inventories, property, plant and equipment, intangible assets, and special problems of income determination. Corporative financial statements, ratio analysis, and analysis of variations in income and costs are studied. Prerequisites: BUS 11, BUS 12, and BUS 15. Three credit hours

**BUS 20 Business Finance I**

Staff

A study of the promotion, organization, and financing of the single proprietorship, partnership, and corporation. Such topics as funds flows, cash budgeting, and capital budgeting are examined. Prerequisites: ECON 11, ECON 12, and BUS 11. Three credit hours

**BUS 21 Business Finance II**

Staff

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 20. Three credit hours

**BUS 30 Investment Management**

Staff

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 11, ECON 12, BUS 11, and BUS 12. Three credit hours

**BUS 40 Elements of Industrial Management**

Annett, Taylor

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 11 and ECON 12. Three credit hours

**BUS 43 Problems of Small Business**

Annett

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 11. Three credit hours

**BUS 60 Marketing**

Staff

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 11, ECON 12, and BUS 11. Three credit hours

**BUS 64 Retailing**

Taylor

Study of the retail distribution structure and of the problems involved in successful store operation under current conditions. Prerequisite: BUS 60. Three credit hours

**BUS 67 Sales Management**

Taylor

Analysis of the problems facing marketing management in formulating sales policy and in managing the sales organization. Prerequisite: BUS 60. Three credit hours

**BUS 80 Business Law**

Emmanuelson

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. Three credit hours

**BUS 90 Business Data Processing**

Siedlik

The application of electronic data processing equipment to accounting systems. Basic principles of operation and programming. Selected case problems. Prerequisites: BUS 11 and BUS 12. Three credit hours



**BUS 93 Human Relations in Business**

Annett

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.

Three credit hours

**BUS 95 Business and Society**

Taylor

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.

Three credit hours

**ECON 11 Principles of Economics I**

McKeil

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.

Three credit hours

**ECON 12 Principles of Economics II**

McKeil

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.

Three credit hours

**ENG 11 Composition**

Staff

Intensive practice in expository writing, with reading of illustrative material. Students in the ABA program will complete ENG 11 on a pass-fail basis or receive credit by examination.

Three credit hours

**ENG 19 Expository Writing**

Staff

Training in clear expository writing of formal reports, business communications, and related material.

Three credit hours

**ENG 120 Introduction to Literature**

(See English Department course offerings)

**ENG 150 Topics in Literature**

(See English Department course offerings)

**MS 10 Mathematical Analysis for Business Decisions I**

Staff

The traditional topics of elementary mathematics are included to acquaint the student with their uses as tools which can be applied to solving problems of a business-making nature. Topics covered include integers, real numbers, number systems, set theory, and complex numbers.

Three credit hours

**MS 11 Mathematical Analysis for Business Decisions II**

Staff

A continuation of MS 10.

Three credit hours

**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)

**TC 150 Business Communications**

(See Theatre/Communications Department course offerings)

**TC 170 Public Speaking**

(See Theatre/Communications Department course offerings)

**UNDERGRADUATE COURSES IN THE FOUR-YEAR PROGRAM  
IN BUSINESS ADMINISTRATION**

**BUS 101 Introductory Accounting**

Findlay, Hodson

An introduction to accounting principles and concepts. Emphasis is placed on the preparation of financial statements and the accounting for assets, liabilities, equities, revenue, and expenses.

Three credit hours

**BUS 102 Financial and Management Accounting**

Findlay, Hodson

(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 the corporate form of organization, manufacturing operations, cost determinations and controls, analysis of financial statements, changes in financial position, consolidated financial statements, and income tax considerations. Prerequisite: BUS 101.

Three credit hours

**BUS 190 Personal Finance**

Fitzpatrick

Dealing with the problems of managing personal finances, primary emphasis is placed on methods of measuring and evaluating expenditures to assure optimal benefit from the income. It includes an evaluation of typical occupations and incomes; of life insurance with the various types, investments and mutual funds; of the borrowing of money and use of credit; of taxes and estate planning. The course work will be a series of readings with brief case problems in each of the major areas. (When taken by business or accounting majors, this course will give elective credit)

Three credit hours

**BUS 301 Intermediate Accounting I**

Hall

An intensive study of accounting theory including the accounting for corporate capital, investment in securities, cash, receivables, and liabilities. Prerequisite: BUS 101.

Three credit hours

**BUS 302 Intermediate Accounting II**

Hall

The study of accounting theory including inventories, property, plant and equipment, intangible assets, and special problems of income determination. Corporate financial statements, ratio analysis, and analysis of variations in income and costs are studied. Prerequisite: BUS 101.

Three credit hours

**BUS 305 Cost Accounting**

Hodson

The principles and methods of job order costing and process costing, including analysis and allocation of factory overhead. A study of joint and by-product costs. Methods and management use of standard costs. Management decision-making through the use of direct costing and cost volume-profit analysis. Prerequisite: BUS 101.

Three credit hours

**BUS 306 Advanced Cost Accounting**

Staff

Devoted primarily to a detailed study of management uses of cost data. In addition, budgets, forecasting, and capital budgeting are discussed. Prerequisites: BUS 101 and BUS 102. (Not offered in 1973-74)

Three credit hours

**BUS 310 Advanced Accounting I**

Hall

A study of accounting principles and theory related to changes in financial position; partnerships; consignment and installment sales; and receiverships. Prerequisites: BUS 301 and BUS 302. Three credit hours

**BUS 311 Advanced Accounting II**

Hall

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. Prerequisites: BUS 301 and BUS 302. Three credit hours

**BUS 313 Federal Tax Reporting**

Staff

Federal tax laws as they affect individuals, partnerships, corporations, and related topics. Prerequisite: BUS 101. (Offered in 1973-74 only by the Continuing Education Division) Three credit hours

**BUS 320 Business Finance**

Fitzpatrick

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. Three credit hours

**BUS 330 Investment Management**

Fitzpatrick

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. Three credit hours

**BUS 340 Elements of Industrial Management**

Waters

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. Three credit hours

**BUS 346 Personnel Management**

Chandler

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. Three credit hours

**BUS 348 Industrial Relations**

Chandler

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 BUS 346. (Not offered in 1973-74) Three credit hours

**BUS 352 Dynamics of Organization and Behavior**

Chandler

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 associated topics are also covered. Prerequisite: BUS 340 or BUS 348. (Not offered in 1973-74) Three credit hours

**BUS 360 Marketing**

Manck, Waters

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. Three credit hours

**BUS 363 Advertising**

Manck

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. Three credit hours

**BUS 368 Sales Management**

Staff

An analysis of the problems facing marketing management in formulating sales policy and in managing the sales organization. Prerequisite: BUS. 360. (Not offered in 1973-74)  
Three credit hours

**BUS 370 Managerial Marketing**

Manck

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. Prerequisites: BUS 360 and MS 212.  
Three credit hours

**BUS 373 Marketing Research**

Manck

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. Prerequisites: BUS 360 and MS 212.  
Three credit hours

**BUS 380 Business Law**

Emmanuelson, Siedlik

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)  
Three credit hours

**BUS 385 Business Economics**

Durgin

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, and BUS 101.  
Three credit hours

**BUS 390 Business Data Processing I**

Siedlik

The application of electronic data processing equipment to accounting systems. Basic principles of operation and programming. Selected case problems. Prerequisite: BUS 101.  
Three credit hours

**BUS 391 Business Data Processing II**

Siedlik

Advanced Computer Programming. Implementation of the management by exception concept in data processing. Programming of elementary mathematical models for business problems. Prerequisite: BUS 390. (Not offered in 1973-74)  
Three credit hours

**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.  
Five credit hours

**BUS 396 Cooperative Education—Business Administration II**

Open to Sophomores, Juniors, and Seniors in the School of Business and Economics with permission.  
Five credit hours

**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.  
Five credit hours

**BUS 410 Auditing**

Findlay

A study of auditing philosophy and theory relative to the examination of financial and other data. Internal control; auditing standards and procedures; and the legal and ethical responsibilities of the independent auditor. Prerequisites: BUS 301 and BUS 302.  
Three credit hours

**BUS 421 Investment Analysis**

Fitzpatrick

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.

Three credit hours

**BUS 422 Topics in Investment**

Fitzpatrick

An in depth study of each of the major topics investments. The course is based upon assigned readings, research, and discussion. Prerequisite: BUS 320. (Not offered in 1973-74)

Three credit hours

**BUS 450 Business Management and Policy**

Waters

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.

Three credit hours

**BUS 490 Independent Readings and Research in Business**

Staff

Selected topics in the various areas of accounting, finance, management, and marketing may be studied and researched on an independent basis. (Not for graduate credit.) Prerequisites: Senior standing and permission of the instructor.

Three credit hours

## UNDERGRADUATE COURSES IN THE FOUR-YEAR PROGRAM IN ECONOMICS

**ECON 101 Principles of Economics I**

Staff

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.

Three credit hours

**ECON 102 Principles of Economics II**

Staff

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.

Three credit hours

**ECON 150 Elementary Economics**

Bien, Witherill

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.

Three credit hours

**ECON 201 Current Economic Problems**

Witherill

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.

Three credit hours

**ECON 301 Macroeconomic Analysis**

Bay

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.

Three credit hours

**ECON 302 Microeconomic Analysis**

Bien

Price, income, and employment theory as tools in the study of economics. Prerequisites: ECON 101 and ECON 102.

Three credit hours

**ECON 310 Money and Banking**

Bay

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. Three credit hours

**ECON 320 Labor Economics**

Chandler

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. Three credit hours

**ECON 330 Social Control of Business**

McMahon

Public policy toward business; government powers and private rights; government aids; regulation of competition and monopoly; public enterprise. Prerequisites: ECON 101 and ECON 102. Three credit hours

**ECON 340 History of Economic Thought**

Durgin

A survey of the development of basic economic principles and theories from pre-industrial times to the present. Major emphasis is on the Classical School (Smith, Ricardo, and Malthus) and its critics, the development of the Austrian School, the synthesis of Neo-Classicism, and the emergence of Macro-economics. Prerequisite: Economics major, or permission of the instructor. Three credit hours

**ECON 350 Comparative Economic Systems**

Durgin

The structures and operating principles of the major contemporary economic systems are examined and compared. Prerequisite: ECON 101. Three credit hours

**ECON 351 Economic Systems of the Soviet Union**

Durgin

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. Three credit hours

**ECON 360 Economic Development**

Witherill

The theories and practices of interregional and international economic development. Special attention is given to development problems of emerging nations. Prerequisite: ECON 101. Three credit hours

**ECON 370 International Trade**

Bien

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. (Offered in 1973-74 only by the Continuing Education Division) Three credit hours

**ECON 380 Public Finance and Fiscal Policy**

McMahon

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. Three credit hours

**ECON 381 State and Local Government Finance**

McMahon

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. Three credit hours

**ECON 490 Independent Readings and Research in Economics**

Staff

Selected topics in the various areas of economics may be studied and researched on an independent basis. (Not for graduate credit.) Prerequisites: Senior standing and permission of the instructor. Three credit hours

**ECED 300 Economic Concepts and Resource Materials**

Witherill

A study of 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. Prerequisites: ECON 101, 102, and 350, plus junior standing in the School of Education. Three credit hours

# MASTER OF BUSINESS ADMINISTRATION

## GRADUATE COURSES

(Offered in 1973-74 only by the Continuing Education Division)

### **BUS 510 Operations Research**

Siedlik

This course deals with the formulation and solution of optimization models for business decision making and economic resource allocation. Major emphasis on mathematical programming models, including linear programming fundamentals, simplex methods, duality theory, sensitivity analysis and parametric programming in postoptimality analysis, goal programming, linear programming under uncertainty, dynamic programming, allocation problems (assignment, transportation models, transportation simplex methods), network flows, integer programming, nonlinear programming, polygonal approximations, and gradient methods. Emphasis also on applications in accounting, finance, economics, marketing, and production management. Prerequisites: one course in statistics and one in calculus. Three credit hours

### **BUS 520 Industrial Relations and Personnel Management**

Chandler

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. Three credit hours

### **BUS 523 Collective Bargaining**

Chandler

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. Three credit hours

### **BUS 527 Human Relations in Industry**

Waters

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. (Not offered in 1973-74)

Three credit hours

### **BUS 530 Senior Executive Decision Making**

Plowman

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. (Not offered in 1973-74) Three credit hours

### **BUS 533 Production Management**

Staff

Decision models will be introduced with emphasis on statistical inference and decision theory, queuing theory, inventory theory, simulation, game theory, and Markovian decision models. Application areas include Product R & D investment models, capacity investment decision models, facility design models, line-balancing models, system maintenance models, and production system operating models. Prerequisite: BUS 510. (Not offered in 1973-74) Three credit hours

**BUS 537 Organizational Behavior in Business**

Staff

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 in 1973-74)

Three credit hours

**BUS 540 Managerial Accounting**

Findlay

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 semester hours in accounting.

Three credit hours

**BUS 550 Managerial Economics**

Durgin

Application of economic analysis to the management of business enterprises. Designed to develop the student's ability to understand and use some of the important economic concepts, tools, and methods, relevant to operations and decisions within a business firm. Particular attention is given to the analysis of market demands, price policy, cost structures and production functions, capital budgeting, planning, and financing. Prerequisite: Nine semester hours in economics and a course in introductory calculus.

Three credit hours

**BUS 553 Business Cycles and Forecasting**

Bay

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. (Not offered in 1973-74)

Three credit hours

**BUS 560 Financial Management**

Fitzpatrick

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.

Three credit hours

**BUS 563 Investment Management**

Fitzpatrick

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. Prerequisites: One course in finance.

Three credit hours

**BUS 570 Marketing Management**

Waters

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.

Three credit hours

**BUS 573 Market Research and Analysis**

Manck

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.

Three credit hours

**BUS 583 Business Logistics**

Plowman

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 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 roles as logistics sub-systems or building blocks. Prerequisite: BUS 510.

Three credit hours



# School of Education

HARLAN A. PHILIPPI, Dean

**Elementary Education Department:** Professors Kerr, Neuberger; Associate Professors M. Costello (Chairman), O'Donnell; Assistant Professors Allen, Fickett, Small.

**Secondary Education Department:** Professors Cobb (Chairman), Rhoades, Soule; Associate Professors Hackett, Walker; Assistant Professors Littlefield, Peterson; Instructor Bemis.

**Foundations Department:** Professor Southworth; Associate Professors Bowman, Chronister, Milbury, C. Smith, J. Whitten (Chairman); Assistant Professors Colucci, Davis, LaPointe, D. Moore.

**Department of Industrial Education and Technology:** Professors Berry, Mitchell (Chairman); Associate Professors Faulkner, Slocum; Assistant Professors Carter, Morrill, Nannay, Serenbetz; Instructor W. Moore.

## BACCALAUREATE PROGRAMS IN TEACHER EDUCATION

The School of Education concerns itself with direct preparation of school teachers and with providing professional courses for students in any college of the University who wish to meet teacher certification requirements.

All curricula and programs require four years for completion. Upon graduation, the student receives the Bachelor of Science degree and the proper teaching certificate. The University of Maine at Portland-Gorham prepares teachers in the following course programs:

### Kindergarten-Primary, Elementary

The Kindergarten-Primary curriculum qualifies students to teach in kindergarten through grade eight, with emphasis on kindergarten through grade three. A detailed description of this program is provided on the following pages of this section of the catalog.

The Elementary curriculum qualifies graduates to teach grades kindergarten through eight with emphasis on grades four through six. A detailed description of this program is provided on the following pages of this section of the catalog.

Both Elementary Majors and Kindergarten-Primary Majors are required to complete a basic core of courses which meet the General Education Requirements of UMPG and which are especially adapted to meet the general educational needs of teachers of children at the elementary or kindergarten-primary levels.

### Secondary (7-12)

The Secondary curriculum qualifies graduates to teach grades seven through twelve in the fields of biology, economics, English, French, general science, history, mathematics, theatre/communications, and social studies. Specific pre-professional courses which students in the Secondary Curriculum must

include in their 30-hour General Education core, together with a listing of required and limited-elective courses in the Professional Education Curriculum for Secondary Majors, are provided on the following pages of this section of the catalog. The academic major, minor, and area-concentration programs are provided by the appropriate departments of the College of Liberal Arts, and descriptions of those programs will be found under the relevant departmental headings of that portion of the catalog devoted to the College of Liberal Arts.

Secondary Education students with majors or minors in English, History, or the Social Sciences area must achieve at least six credits with grades of B or better in such majors or minors. No grades of D will count toward fulfillment of the major or minor requirements. No required course may be repeated more than once.

### **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 Liberal Arts.

### **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 Music Education curriculum is provided under the Music Department heading in the section of the catalog dealing with the College of Liberal Arts.

### **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.

## **PHYSICAL EDUCATION REQUIREMENTS FOR ALL EDUCATION MAJORS**

Students in the School 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 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 UMPG 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 School 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.

## PROGRAMS FOR ELEMENTARY MAJORS AND KINDERGARTEN-PRIMARY MAJORS

Both Elementary Majors and Kindergarten-Primary Majors are required to complete a basic core of courses which meet the General Education Requirements of UMPG and which are especially adapted to meet the general educational needs of teachers of children at the elementary or kindergarten-primary levels.

### Core Requirements for Elementary and Kindergarten-Primary Majors

Basic Core:		<i>Credit hours</i>
Humanities	ENG 120 Introduction to Literature or ENG 200 Topics in Literature, plus one course in a foreign language, Philosophy, or English.	6
Fine Arts	Any electives from Art, Music, or Theatre/Communications.	6
Science	Electives.	6
Mathematics	MS 131 and 132. Mathematics elective will be substituted if MS 131 is passed through proficiency test.	6
Social Sciences	Electives from Psychology, Sociology, Anthropology, Political Science, History, Geography, Economics.	6
Interdisciplinary Courses	(Or any academic courses in addition to the major or minors.)	6
Physical Education		1
		<hr/> 37

### Professional Education for Kindergarten-Primary and Elementary Education Majors

Each student in the Kindergarten-Primary or Elementary Education Program is required to complete a minimum of 36 credit hours in professional education, as follows:

EDU 200	Studies in Foundations of Education (Replaces former courses in American School and Philosophy of Education.)	
*EDU 300/301	Curriculum	EDU 336 Children's Literature
*EDU 302/303	Reading	EDU 319 Measurement and Evaluation
*EDU 304/305	Teaching Mathematics	EDU 324 Student Teaching
*EDU 308	Teaching Elementary Science	*EDU 333 Human Growth and Development
	Electives in professional education	

\*These education courses must be completed before student teaching.

### Additional Requirements for Kindergarten-Primary and Elementary Education Majors

In addition to the general and professional requirements, each Kindergarten-Primary and Elementary Education Major is required to complete at least one academic major of 30 credits or two minors of 18 credits each. One minor may be in education and one in an academic area; or both minors may be in academic areas. The approved language arts program may be included as a 30 hour major.

## 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) ESCI 101 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	GEOL 111	Physical Geology
ASTR 109	Intro to Astronomy	GEOL 112	Historical Geology
BIO 103	Biological Diversity	PSCI 310	History of Science
BIO 104	Survey of Animals and Plants	MET 100	Meteorology
CHEM 101	Modern Chemistry I	OCN 100	Intro to Oceanography
CHEM 111	General Chemistry I	PSCI 110	Elements of Physical Science
ESCI 200	Environmental Science	PHYS 100	Descriptive Physics
ESCI 202	Conservation		

## ENGLISH

Students in Kindergarten-Primary or Elementary Education in the School 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 School of Education.

## FRENCH

A French major for students in Kindergarten-Primary or Elementary Education in the School of Education consists of 30 credits above the 200 level.

### Required Courses:

FRE 201 and 202	Composition and Conversation
FRE 231 or 232	Introduction to French Literature I or II
FRE 203	Phonetics
FRE 251 or 252	French Civilization I or II
FRE 401 or 402	Advanced French Grammar I or II

### Elective Courses:

Literature courses on the 300 level.  
Any course listed above as required, beyond the 18 credits.

Students must also take the professional course FLED 301 – The Teaching of Foreign Languages.

A French minor for students in Kindergarten-Primary or Elementary Education in the School of Education consists of 12 credits above the 200 level. (18 including Intermediate French.)

### Required Courses:

FRE 201 and 202	Composition and Conversation
FRE 231	Introduction to French Literature I

### Elective Courses:

FRE 203	Phonetics
FRE 232	Introduction to French Literature II
FRE 401	Advanced French Grammar I

or  
FRE 402 Advanced French Grammar II  
Any French Literature course on the 300 level.

Students must also take the professional course FLED 301 – The Teaching of Foreign Languages.

## **GEOGRAPHY MINOR**

A Geography minor for students in Kindergarten-Primary or Elementary Education in the School of Education consists of the following:

### **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.

## **SOCIAL SCIENCES**

An academic major in Social Sciences for students in Kindergarten-Primary or Elementary Education in the School of Education consists of a minimum of 30 hours of HIST, SOC, POL, ANY, GEOG, or ECON courses.

An academic minor in Social Sciences for students in Kindergarten-Primary or Elementary Education in the School of Education consists of a minimum of 18 hours of HIST, SOC, POL, ANY, GEOG, or ECON courses.

## **HISTORY**

Students in Kindergarten-Primary or Elementary Education in the School of Education may complete 30 hours of History 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 School of Education.

## **MATHEMATICS**

Kindergarten-Primary or Elementary Education majors in the School of Education may fulfill an area concentration by successfully completing MS 131, MS 132, and eight elective three-credit hour Mathematics courses with MS code numbers of 120 or above.

Kindergarten-Primary or Elementary Education majors in the School of Education may complete an academic minor in Mathematics by successfully completing MS 131, MS 132, and four elective three-credit hour Mathematics courses with MS code numbers of 120 or above.

## **ECONOMICS MINOR**

Students in Kindergarten-Primary or Elementary Education in the School of Education will receive an academic minor in Economics 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.)

## **Other General Requirements**

Students majoring in the Kindergarten-Primary or Elementary Education programs must achieve a grade point average of at least 2.5 in their professional education 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 academic major or minors.

An undergraduate in the School 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 block for election of the pass-fail option. 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 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.

## 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/communications, and social studies. The academic major, minor, and area-concentration programs are provided by the appropriate departments of the College of Liberal Arts, and descriptions of those programs will be found under the relevant departmental headings of that portion of the catalog devoted to the College of Liberal Arts. 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 School 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 thirty-hour general education core required of all students, and described on the inside front cover of this catalog, students of Secondary Education 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

##### *Credit Hours*

EDU 200	Foundations of Education	3
EDU 333	Human Growth and Development	3
EDU 316	Methods of Teaching in the Secondary School or a methods course in a specific discipline	3
EDU 324	Student Teaching	12

Total	21
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## PATTERN B

### Professional Studies

	<i>Credit Hours</i>
EDU 200 Foundations of Education	3
EDU 333 Human Growth and Development	3
EDU 316 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	
Total	18

## COURSES IN EDUCATION

### EDU 101 The Role of Education in Social Change

Peppe

A critical examination of four basic types of social change procedures, with emphasis on the theories that support each, the possible effects of each on persons and the general social order, and the socio-psychological conditions that give rise to social change. The case-study method is used in examining the basic types; theoretical literature is used to provide a working fund of knowledge on the nature of social systems. Three credit hours

### EDU 150 Preprofessional Field Experiences

Staff

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 freshmen and sophomores with enrollment limited according to transportation and available opportunities. Transportation not provided. (Pass-Fail only.) Two credit hours

NOTE: A student, with permission, may continue this course for several subsequent semesters under course code numbers EDU 151, 152, 153, and 154.

### EDU 200 Studies in Educational Foundations

Staff

This course offers a multi-disciplinary and open-ended approach to the study of education. Topics and resource units (social, historical, and philosophical in perspective) have been selected and prepared to allow students the freedom to explore, both independently and in group settings, educational issues, questions, and concerns. Students enrolled in this course will be placed in a learning environment designed (1) to elicit critical thinking, (2) to examine assumptions and beliefs regarding education, and (3) to test personal commitment to education. Open to sophomores and others who have not met requirements of an introductory course in Foundations, such as the previously offered course in American School. No prerequisites. Three credit hours

### EDU 300 Primary Curriculum: Methods and Materials

Staff

A core course which analyzes curriculum, methods, and materials from kindergarten through third grade, with special attention to language arts and social studies. Topics include programming, types of curricula, evaluation, development of units, lesson planning, grouping, sociometric procedures, reporting to parents, analysis of textbooks, and audio-visual techniques. Observation, participation, and supplementary guest speakers. Includes preprofessional experiences. Three credit hours

### EDU 301 Elementary Curriculum: Methods and Materials

Costello

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, sociometric procedures, reporting to parents, analysis of textbooks, and audio-visual techniques. Observations and resource speakers are included. Includes preprofessional experiences. Three credit hours

**EDU 302 Primary Reading**

O'Donnell

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.

Three credit hours

**EDU 303 Elementary Reading**

Fickett, Small

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 a reading lesson.

Three credit hours

**EDU 304 Teaching Primary School Mathematics**

Staff

Techniques for teaching mathematics in primary grades. Includes preparation and laboratory use of materials, analysis of current textbooks, and exposure to experimental programs. Includes preprofessional experiences.

Three credit hours

**EDU 305 Teaching Elementary School Mathematics**

Allen

Developing techniques for teaching mathematics to intermediate grade pupils. Major consideration will be given to the philosophy of teaching mathematics, comparing various curricula of the subject, developing organized lessons, using techniques for evaluating the aims of the lessons, and exploring ways to enrich the mathematics curriculum. Field experiences in the public schools will be an integral part of the course. Prerequisite: MS 101.

Three credit hours

**EDU 306 Secondary Reading**

Walker

This course places emphasis upon developmental, corrective, adaptive, and remedial reading. Methods of teaching reading in the secondary school and reading instruction as it applies to the content areas.

Three credit hours

**EDU 307 Science and Health for the Primary Teacher**

Kerr

Problems and methods of teaching science and health. Current practices and teaching materials are emphasized and evaluated. This course gives the students an opportunity to design, prepare, teach, and evaluate their work at the K-3 level.

Three credit hours

**EDU 308 Science and Health for the Elementary Teacher**

Kerr

Problems and methods of teaching science and health. Current practices and teaching materials are emphasized and evaluated. Includes preprofessional experiences.

Three credit hours

**EDU 309 Selection and Utilization of Education Media**

Staff

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.

Three credit hours

**EDU 310 Preparation of Classroom Instructional Materials**

Davis, Milbury

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 \$7.50.

Three credit hours

**EDU 312 Teaching Language Arts in Elementary School**

Costello

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 arts books for the elementary school. Opportunities to work with children in local schools.

Three credit hours



**EDU 313 Maine School Law****Cobb**

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. Three credit hours

**EDU 314 Secondary Curriculum****Cobb, Hackett**

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. Three credit hours

**EDU 315 Teaching English in the Secondary School****Lyons**

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 first-hand 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. Three credit hours

**EDU 316 Teaching Family Life and Sex Education****Bemis**

A philosophical, physiological, and methodological approach to family life and sex education in the schools. Major topics dealing with human sexuality will be discussed. Perspectives, methods and materials, program planning, and curriculum development will be included. Three credit hours

**EDU 317 Teaching Social Studies in the Secondary School****Whitten**

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. Three credit hours

**EDU 318 Teaching Science in the Secondary School****Kerr, Rhoades**

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. Three credit hours

**EDU 319 Measurement and Evaluation****Staff**

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. Three credit hours

**EDU 320 Kindergarten Development****Chaplin, Marsh**

A unique class in that it meets in the kindergarten classroom. Students meet with two classroom teachers who teach theory for one-half of the two-hour class and provide opportunity for the students to observe and participate in class development related to these theories during the second hour. Prerequisite: EDU 300 Primary Curriculum, Methods and Materials. Two credit hours

**EDU 321 Atypical Reading Patterns****Fickett**

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, dyslexia, Frostig materials, and Vallett materials. Includes preprofessional experiences. Three credit hours

**EDU 322 Remedial Reading****Staff**

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.

Three credit hours

**EDU 323 Independent Study in Education****Rhoades, Staff**

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.

Credit hours to be arranged

**EDU 324 Student Teaching****Staff**

Full-time student teaching during the senior year is provided under supervision in off-campus situations for all who meet prerequisites. Students are assigned to Elementary or Secondary schools or other educative agencies for one half semester. It is recommended that all Elementary students pursue two quarters consecutively. For the 1973-74 school year, Secondary Education students on the Gorham Campus will be permitted to take two quarters while Portland students will take one. During the other quarter, students usually enroll in a full time program of courses. This provides opportunity to teach according to choice in a different situation each quarter. Opportunities include Kindergarten-Primary, Elementary, Secondary, Art, Music, Industrial Arts, Theatre/Communications, and Trade and Industry. Prerequisites vary according to major field of study. See curriculum listings in the catalog.

Six or twelve credit hours

**EDU 325 Seminar in Primary Education****Staff**

Consideration of such critical problems in primary education as school law in relation to the primary teacher; grouping and individual differences; basic organization of student teaching; the primary teacher in relation to community, school, and state. Faculty members from special areas as well as visiting lecturers participate.

Two credit hours

**EDU 326 Seminar in Elementary Education****Castello**

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. Prerequisite: enrollment in EDU 324 Student Teaching.

Two credit hours

**EDU 327 Seminar in Secondary Education****Cobb**

A group discussion concerned with student teachers' questions and answers.

Two credit hours

**EDU 330 Teaching Biology in the Secondary School****Dorsey**

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.

Three credit hours

**EDU 336 Children's Literature****Staff**

A course designed to acquaint students with varied types of literature for children in the lower and middle grades. Emphasizes extensive reading, but also includes the selection, critical evaluation, and use of materials.

Three credit hours

**EDU 350 Modern Philosophies of Education****Staff**

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. Prerequisites: Open to Juniors and Seniors who have completed EDU 200 or equivalent, or a course in general Philosophy.

Three credit hours

**EDU 351 Historical Foundations of American Education****Staff**

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.

Three credit hours

**EDU 393 Science Field Workshop****Neuberger**

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.

Three credit hours

**EDU 399 Field Experience — Human Service Professions****Staff**

This field experience course is designed to provide the teacher candidate with experiences which will increase the candidate's awareness and understanding of the larger community, of other human service systems involved in community dynamics, and the role of the school in its relationships with other social systems, operating together as socializing agencies in the lives of children and adolescents. Each student will serve an internship at one of the cooperating community agencies, working closely with a qualified professional. It is expected that the student will become significantly involved with individual clients (served by the agency) to gain real insight into the life styles and needs. In addition, a biweekly seminar will focus on observations, concepts and problems documented in the student's weekly diaries.

Three credit hours

**EDU 499 Introductory Photography****Davis**

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: \$12.50 per person.

Three credit hours

**ECED 300 Economic Concepts and Resource Materials****Witherill**

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. Prerequisites: ECON 101, 102, and 350, plus junior standing in the School of Education.

Three credit hours

**EDPY 331 Group Dynamics****Southworth**

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.

Three credit hours

**EDPY 332 Psychology of the Self****Southworth**

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.

Three credit hours

**EDPY 333 Human Growth and Development****Bowman**

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.

Three credit hours

**EDPY 335 Educational Psychology****Southworth**

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.

Three credit hours

**ANY 306 Human Reproduction, Contraception, and Family Planning****Mazer**

Topics to be presented during the sixteen class sessions include human reproductive anatomy and physiology, sexual arousal, fertility, types and functions of contraceptive devices, homosexuality, pregnancy, conception, masturbation, family planning, and reproductive senility. The aims of this course will be to provide a solid foundation of factual knowledge and then to use this foundation to encourage class discussion of significant sexual problems of current concern. (Offered only in the Continuing Education Division.)

Three credit hours

# 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: 52 credit hours total

Humanities	9 credits
Fine and Applied Arts	6 credits
Mathematics and Science	12 credits
Social Sciences and Psychology	9 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 Metals Technology
IA 260 Woods Technology

## REQUIRED OF TEACHER EDUCATION MAJORS

### Professional Education Courses: 23 credit hours total

EDU 150-4 Preprofessional Field Experiences	2 credits
EDU 335 Educational Psychology	3 credits
IAED 380-381 Curriculum Methods and Materials	6 credits

EDU 324 Student Teaching and Seminar	12 credits
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(Minimum 2.5 cumulative index required in order to register for 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 444 Photographic Reproduction  
IA 445 Color Reproduction Theory

## **IV—Manufacturing and Construction**

IA 351 Machining and Fabrication  
IA 352 Fabrication and Forming  
IA 361 Custom Production 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)  
EDU 371 Career Education for the Elementary School

## **REQUIRED OF TECHNOLOGY MAJORS**

**Additional Course in General Education: 3 credit hours**

EDU 200 Studies in Foundations of Education

**Business Administration and Economics: Elect 18 credit hours**

(Electives from the following 3 credit courses)

Economics	Cost Accounting
Accounting	Finance
Industrial Management	Industrial Relations
Marketing	Human Relations

**Technical Electives: 24 credits from the groups above.**

Minimum of two courses in each group

**Special Problems: 2 credit hours**

## **INDUSTRIAL ARTS CURRICULUM**

### **Freshman Year**

	Credit Hours
English (Elective)	6
Mathematics (Elective)	6
Science (Elective)	6
Physical Education	1
EDU 200 Studies in Foundations of Education	3
IA 130 Graphic Communication	3
IA 100 Manufacturing and Construction	3
IA 101 Energy and Transportation	3
IA 231 Technical Graphics	3

### **Sophomore Year**

PSY 101 General Psychology	3
Fine Arts (Elective)	6
Literature (Elective)	3
Area 5: General (Elective)	3
IA 210 Electronic Technology	3
IA 220 Power Technology	3
IA 241 Graphic Arts Technology	3
IA 250 Metals Technology	3
IA 260 Wood Technology	3
IA 270 Modern Industry	3

<b>Junior Year (Teacher Education Majors)</b>		
	Social Science (Electives)	6
	Scogis (Elective)	3
EDU 335	Educational Psychology	3
IAED 380-381	Curriculum Methods and Materials	6
	Industrial Arts Technical (Electives)	12
<b>Junior Year (Technology Majors)</b>		
	Social Science (Electives)	6
	Area 5: General (Elective)	3
	Economics (Elective)	3
	Accounting (Elective)	3
	Finance (Elective)	3
	Industrial Arts Technical (Electives)	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>		
	Industrial Management (Elective)	3
	Marketing (Elective)	3
	Industrial Relations (Elective)	3
	Industrial Arts Technical (Electives)	12
	Special Problems (Elective)	2
	General Education (Elective)	6

### **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 Administration 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 department chairman for further details.

## **COURSES IN INDUSTRIAL ARTS**

### **ENERGY AND TRANSPORTATION**

#### **IA 101 Energy and Transportation**

Nannay

Concepts of Energy and Power related to the areas of muscle, water, wind, solar, nuclear, chemical, combustion, electricity; and with the World of Transportation, the areas of land, water, and space. Students will be involved with group and individual constructional activities to facilitate the study of such energy sources and transportation vehicles, facilities, and networks. Required for all first year students.

Three credit hours

#### **IA 210 Electronics Technology**

Slocum

Review of basic network theory; AC networks; theory and use of electrical measuring instruments; semiconductors, diodes, and transistors; basic communication circuits.

#### **IA 220 Power Technology**

Carter

A study of those industries concerned with power; its sources, generation, transmission, and control. Applications of power in the fields of manufacturing construction and transportation are considered and developed. Emphasis is placed on thermal engines — theory, construction, operation, maintenance, and service.

Three credit hours

**IA 311 Communication Electronics****Slocum**

Detailed study of common communication circuits, including phonographs, AM-FM radio, television, and radar; integrated circuit technology and application.

**Three credit hours****IA 312 Computer Technology****Slocum**

Basic programming and use of University computing facilities; principles of logic design of digital equipment; social, industrial, and psychological consequences of the computer revolution. Open to all students.

**Three credit hours****IA 313 Electrical Construction****Slocum**

Modern electrical construction and wiring practices utilizing the National Electrical Code. Motors, controllers, and residential wiring will be stressed. Field study of industrial electrical construction and maintenance procedures, as well as commercial and new residential buildings.

**Three credit hours****IA 321 Automotive Systems****Carter**

The study of the automobile and its systems. Theory, design and construction, operation, maintenance, testing, and service included. Utilization of prime movers and devices common to all fields of transportation explored and considered. Prerequisite: IA 220.

**Three credit hours****IA 322 Automotive Diagnosis and Tuneup****Carter**

The study of automotive systems. Analysis and diagnosis. Tuneup and servicing included. Opportunities for independent research and problem solving provided. Prerequisite: IA 321 or permission of instructor.

**Three credit hours****IA 413 Instrumentation****Slocum**

Introduction to the study of sensing devices and instruments necessary to observe and control both manufacturing processes and the performance of mechanical and electrical machinery. Emphasis on pressure in liquids, atmospheric pressure, temperature, indicating instruments, mechanical and electrical transducers, potentiometric devices, and other monitoring instruments. Prerequisite: IA 210.

**Three credit hours****IA 414 Digital Electronics****Slocum**

Semiconductor junction theory; special devices such as SCR's, FET's; digital electronics, including switching theory and applications. Permission of instructor.

**Three credit hours****IA 423 Fluid Power****Carter**

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.

**Three credit hours****IA 424 Fluid Power Systems****Carter**

Application of fluid power and fluidic systems to manufacturing and construction industries. Prerequisite: IA 423.

**Three credit hours**

## **GRAPHIC COMMUNICATION**

**IA 130 Graphic Communication****Foulkner, Morrill**

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.

**Three credit hours**

**IA 231 Technical Graphics****Faulkner**

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.

**Three credit hours****IA 241 Graphic Arts Technology****Morrill**

A study of the common reproduction systems utilized 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.

**Lecture and lab, three credit hours****IA 332 Architectural Drawing and Design****Faulkner**

Basic architectural design and drawing as related to residential and light construction. A detailed set of plans for a single family 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.

**Three credit hours****IA 333 Descriptive Geometry****Faulkner**

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.

**Three credit hours****IA 342 Photo-Offset Lithography****Morrill**

A study of those industries utilizing photo-offset lithograph with emphasis upon camera work, stripping, platemaking, and presswork. Photographic conversion of line and halftone copy, photo-screen stencils, and finishing procedures are also included.

**Three credit hours****IA 343 Communications Design****Morrill**

An introduction to the principles of layout and design in preparing camera copy for lithographic reproduction. Emphasis on design elements and fundamentals, manuscript and illustration preparation, graphic and photographic techniques, and production specifications.

**Three credit hours****IA 434 Industrial Production Illustration****Faulkner**

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 reproduction. Engineering and architectural problems. Prerequisite: IA 231 or permission of instructor.

**Three credit hours****IA 435 Systems Analysis and Design****Faulkner**

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 333 and permission of instructor.

**Three credit hours****IA 444 Photographic Reproduction****Morrill**

Photographic concepts, processes, and techniques utilized in graphic arts reproduction. Experience in contact printing, continuous tone enlarging, use of filters, and color separations. Prerequisite: IA 342.

**Three credit hours**



**IA 445 Color Reproduction Theory****Morrill**

Advanced study in the additive and subtractive theories of color reproduction. Experiences in photographic separation and offset press printing of color originals. Emphasis on understanding physiological and psychological responses to color. Prerequisite: IA 444.

**Three credit hours**

## **MANUFACTURING AND CONSTRUCTION**

**IA 100 Manufacturing and Construction****Nannay**

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.

**Three credit hours****IA 250 Metals Technology****Moore**

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.

**Three credit hours****IA 260 Wood Technology****Staff**

Structure of wood and its relation to moisture, strength properties, and working qualities. Wood-based materials: veneer, plywood, particleboard, hardboard will be considered. Basic skills in hand and machine processes will be developed. Emphasis on research and experimentation and basic processes in the wood manufacturing industry. Safety practices.

**Three credit hours****IA 351 Machining and Fabrication****Moore**

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.

**Three credit hours****IA 352 Fabrication and Forming****Moore**

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 351.

**Three credit hours****IA 361 Custom Production in Wood****Staff**

Production and wood manufacturing problems including 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.

**Three credit hours****IA 362 Residential Construction****Staff**

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.

**Three credit hours****IA 363 Wood Science****Staff**

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.

**Three credit hours**

**IA 370 Crafts Technology****Nannay**

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. Three credit hours

**IA 371 Plastics Technology****Staff**

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. Three credit hours

**IA 452 Metallurgy and Metrology****Moore**

The technology of metallurgy and metrology. Heat treatment, powdered metals, machining and inspection of metal parts. Individual and group activity. Prerequisite: IA 150. Three credit hours

**IA 472 Materials Testing****Staff**

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 IA 260. Three credit hours

## INDUSTRIAL ARTS EDUCATION

**IA 270 Modern Industry****Staff**

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. Three credit hours

**IA 490 Special Problems in Industrial Arts****Staff**

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. Two credit hours

**IAED 380 Curriculum Methods and Materials****Mitchell**

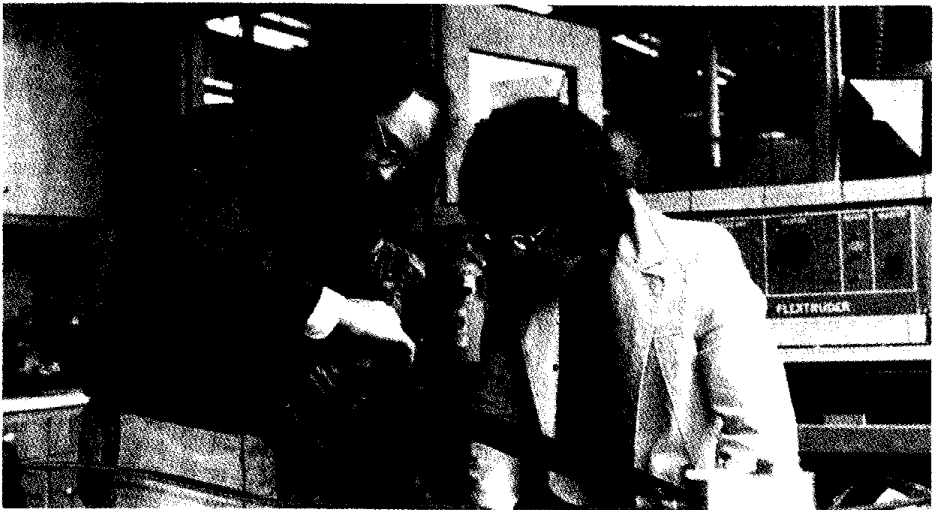
Evaluation of contemporary curriculums in industrial arts. Development of long and short range plans, with emphasis on unit teaching and performance-based objectives. Task analyses for teaching skills and concept development. Instructional media preparation and utilization. Organization for individual or group instruction. Required prior and upon application to student teaching. Prerequisite: EDU 335. Three credit hours

**IAED 381 Curriculum Methods and Materials****Mitchell**

Utilization of prepared plans for micro- and participation-teaching. 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. Three credit hours

**EDU 371 Career Education for the Elementary School****Nannay**

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.) Three credit hours



## Vocational Technical Education

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.
- 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.

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.

<b>A. General Education .....</b>	<b>45 credit hours</b>
Humanities	6
Fine and Applied Arts	6
Science and Mathematics	15
Social Sciences	6
PSY 101 General Psychology	3
IVE 360 Modern Industry	3
Area 5: General	6

B. Professional Education (Teaching Majors Only).....27 credit hours

IVE 305	Curriculum Development in Vocational Education	3
EDU 333	Human Growth and Development	3
IVE 300	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 (Required for all candidates with less than three years of successful teaching experience)	6

C. Area of Specialization (Technical) .....45 credit hours

IVE 400	Occupational Experience, verified (Credits will be determined by rating plan)	maximum
IVE 440	Related Industrial 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 Leading	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

IVE 300	Trade Analysis	3
IVE 325	Conference Leading	3

Business Administration .....18 credit hours  
(Electives from following areas)

	Economics	Cost Accounting
	Accounting	Finance
	Industrial Management	Industrial Relations
	Marketing	Human Relations
IVE 460	Independent Study in Vocational Education	3
IVE 350	Philosophy of Vocational Education	3

## COURSES IN VOCATIONAL-TECHNICAL EDUCATION

### **IVE 300 Trade Analysis**

**Staff**

Identification of trade fields, units, operations, and items of related information and their organization into units of instruction. Three credit hours

### **IVE 305 Curriculum Development in Vocational Education**

**Staff**

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. Three credit hours

### **IVE 310 Methods and Materials of Instruction**

**Staff**

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. Three credit hours

### **IVE 315 Learning and Programmed Instruction**

**Staff**

The first application of the laboratory and scientific study of the learning process. The principles of learning derived from experimental study which have provided a foundation for advances in the techniques of learning. Three credit hours

### **IVE 320 Coordination of Cooperative Education**

**Staff**

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. Three credit hours

### **IVE 325 Conference Leading**

**Staff**

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. Three credit hours

### **IVE 330 Principles and Practices of Vocational Guidance**

**Staff**

Discussion and study with the intent to develop a better understanding of principles and objectives of Vocational Guidance. Three credit hours

### **IVE 340 Shop Organization and Management**

**Staff**

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. Three credit hours

### **IVE 350 Philosophy of Vocational Education**

**Staff**

A survey of the history and philosophy of vocational education in the United States with emphasis upon recent developments. Three credit hours

### **IVE 360 Modern Industry**

**Staff**

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. Three credit hours

### **IVE 382 Preparation of Instructional Materials**

**Staff**

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. Three credit hours

**IVE 400 Trade Experience, verified (see IVE 440, Option #2 below.)**

(Credits will be determined by rating plan)

**IVE 411 Measurement and Evaluation**

Staff

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.

Three credit hours

**IVE 420 Trends in Vocational Education**

Staff

Identification, analysis, and discussion of major problems and trends in vocational education.

Three credit hours

**IVE 440 Related Industrial Experiences**

(Two options, total credits to be no more than the difference between those granted for IVE 400, and 45 credits).

**OPTION #1**

This course is designed to include attendance at an approved industry-sponsored school or seminar for the purpose of providing the vocational/technical teacher with advanced related training. Courses provided by organizations such as General Motors Training Centers, or International Typographical Union, qualify under this course offering.

**OPTION #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 course.

For additional information concerning either option of IVE 440, consult your adviser.

**IVE 450 Local Administration and Supervision of Vocational Education**

Staff

Procedure and practices utilized in establishing, promoting, coordinating, supervising, and controlling vocational programs on the local level.

Three credit hours

**IVE 452 Heat Treatment and Inspection**

Staff

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.

Three credit hours

**IVE 455 Development of Technical Education Programs**

Staff

Planning and development of technical education programs including the determination of needs and organization of programs for secondary and post-secondary schools.

Three credit hours

**IVE 460 Independent Study in Vocational Education**

An opportunity to pursue independently a topic, project, or experiment of interest. Students will prepare a contract or proposal for study to be conducted and, upon completion, submit findings in a scholarly report or other evidence of completeness. Permission of advisor.

Three credit hours

## SCHOOL OF GENERAL AND INTERDISCIPLINARY STUDIES

SCOGIS is an innovative program of the University of Maine at Portland-Gorham. It is based on the belief that different people learn in different ways and are concerned with different aspects of the world. SCOGIS is designed to facilitate these individual learning experiences. Its objectives are threefold: (1) to provide an integrative educational experience through (2) a program of non-traditional general studies in (3) an environment of a community of learners which emphasizes a humane teaching-learning process.

These objectives are intimately related in that an integrative educational experience involves the probing of new multi-faceted subject areas, and this probing requires a supporting community of learners working together within a climate of caring. To facilitate these objectives, the program is structured into flexible and changing clusters of learning experiences. These clusters serve the purpose of focussing a group of courses into a common educational or conceptual problem and also encourage an on-going dialogue beyond a course, with integration and the humane teaching-learning process as educational goals. The clusters also serve as a model to direct a person's design of an educational life.

The single theme uniting all the explorations in the SCOGIS program is the re-examination of values and ways of perceiving the world if we are to survive and enhance our lives as free, responsible human beings. The clusters, therefore, examine attitudes we hold about the world (Form & Society Cluster), the development of a positive self-concept (Self-Concept Cluster and Learning By Doing Cluster), and how to design for change (Design Cluster).

Each course has its own integrity and reason for being in a cluster; each cluster has its own integrity, and each cluster is designed to be part of the whole school experience with its own integrity, purpose, and educational perspective. The synergetic dynamics of all parts in the whole system are facilitated by a common approach to inquiry into values; that is, each course, cluster, and the SCOGIS program re-examines values through the use of four terms: perception, adaptation, creativity, and communication. These terms enable us commonly to ask how we perceive ourselves and the world, how we may adapt in a changing world, how we may act creatively to facilitate change, and how we may best communicate our perceptions.

The courses in the SCOGIS program will change each semester as the re-examinations of values provides insights into new general areas for exploration. Courses are designed to reflect the concerns of, and may be generated and/or led by students, faculty, and members of the community. Clusters and courses are supported by an on-going series of teaching-learning workshops and class visitations. Grading is by mutual contract between members of a course. Personal and course portfolios are maintained; and, since one objective of the program is to encourage a community of learners to grow in a humane teaching-learning environment, responsibility is mutual and evaluation rigorous.



Courses in SCOGIS constitute a non-traditional program of general studies designed primarily for those who wish to explore new general areas not otherwise offered in the university, for those who wish to become independent learners and/or to integrate their classroom experience with an action or problem-oriented learning experience in the community, or for those who wish to learn to integrate their traditional courses with one another.

In the past two years, learning experiences have ranged from a series of action courses exploring the implications of community for survival, to a field research team doing an in-depth study of a major industrial facility to determine the extent of its environmental impact. There has been a team-taught course examining war through studies of the way man portrays it, a course exploring the concept of synergy as applied by R. Buckminster Fuller, and several community practicums involving work with emotionally disturbed, mentally retarded, and low-income peoples.

A Fall Semester Bulletin provides a detailed description of courses and clusters in the SCOGIS program. Contact the SCOGIS House, 11 Granite St., Portland, 773-2981, ext. 478.



# University of Maine

## School of Nursing

MARY ANN EELLS, Dean

Professor MacLean; Associate Professors Cotton, Eells, Fish, Ivanisin, Jensen, Maddox, Rosco, Tyron; Assistant Professors Dubowick, Haas, Linehan, Malmude, Shapiro, Stone, Talbot, Tukey; Instructors Bellone, Marshall, Paige, Tatro; Clinical Associate, Flaherty.

### GENERAL DESCRIPTION THE BACCALAUREATE PROGRAM

The University of Maine School of Nursing offers a four-year program leading to the degree of Bachelor of Science, with a major in nursing. One hundred and twenty credit hours and a cumulative point average of 2.0 are required for graduation.

The program is accredited by the National League for Nursing and approved by the Maine State Board of Nursing. Graduates are eligible to take the State Board Test Pool Examinations for licensure as registered nurses.

The School of Nursing supports the policies of the Admissions Office that (1) applicants must meet the University standards of personal fitness, and (2) that it has the right to cancel acceptance of any applicant that it deems necessary for academic or personal reasons. In addition, the School of Nursing requires that students in the nursing major demonstrate personal fitness and academic proficiency throughout the entire program.

The first two years in the program, consisting largely of general education courses, are available on the Orono, Portland-Gorham, and Presque Isle campuses. The junior and senior years, which include clinical nursing courses, are available on the Portland-Gorham campus. Early application is advisable because of competition for space.

Available for advanced placement is credit in subject examinations offered through C.L.E.P. Interested candidates should discuss their eligibility for taking these examinations with the Dean, 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 Department Chairman of the specific course to be challenged.

In addition to the usual University fees and expenses, nursing students must purchase uniforms (approximately \$75.00) 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.

### Objectives of the Program

In order to prepare the student for nursing in today's world and for the ability to cope with nursing of the future, the program at the University of Maine School of Nursing is designed to prepare a nurse who can: (1) make

effective responses to the needs of people in providing direct care; (2) demonstrate an ability to effectively coordinate care in various settings; (3) identify a personal role as a professional nurse in the community.

### Philosophy

The faculty believes that nursing is an art and a developing science which began with the simple acts of caring and curing. Nursing begins with the initial response of recognizing the biological, social, and psychological needs of the client, makes a priority assessment of such needs, and utilizes feasible modes of nursing intervention. It is this set of sensitive and crucial responses which comprises excellence in nursing care.

The faculty further believes that professional nursing preparation occurs within the climate of higher education. The practice of nursing stems from a theoretical base that concerns man in his biological, social, and cultural environment, and the utilization of this knowledge in nursing science.

### REQUIREMENTS FOR THE NURSING MAJOR

The student who matriculates at the Portland-Gorham 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. D grades will not count towards fulfillment of the requirements of the clinical courses in the nursing major.

FRESHMAN YEAR			SOPHOMORE YEAR		
<i>Required</i>			<i>Required</i>		
BIO 101	Biological Principles	3	BIO 311	Microbiology	3
BIO 102	Biological Experiences	1	BIO 312	Microbiology Lab	2
BIO 111	Human Anatomy and Physiology	3	FN 352	Human Nutrition	3
BIO 112	Practical Human Anatomy and Physiology	1	SOC 101	Introduction to Sociology	
NSG 100	The Role of the Nurse	3	or		
CHEM 101 and CHEM 102		8	ANY 101 or POL 101		3
PSY 101	General Psychology	3	and		
PSY Elective		3	SOC Elective		3
FINE ARTS			FINE ARTS		
or			or		
HUMANITIES		6	HUMANITIES		6
ELECTIVE		3	ELECTIVES		9
		<hr/>			<hr/>
		34			29

JUNIOR YEAR			SENIOR YEAR		
<i>Nursing</i>			<i>Nursing</i>		
NSG 301	Medical-Surgical Nursing I	7	NSG 400	Advanced Medical-Surgical Nursing	12
NSG 302	Medical-Surgical Nursing II	7	NSG 401	Community Health Nursing	3
NSG 303	Nursing of Mothers & Children I	7	NSG 402	Community Health Nursing	6
NSG 304	Nursing of Mothers & Children II	7	NSG 403	Psychiatric Nursing	6
		<hr/>	NSG 404	Seminar in Nursing	2
		28			<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.

## COURSE DESCRIPTIONS

- NSG 100 The Role of the Nurse** Eells  
A survey of the current and expanding roles of the nurse. Three credit hours
- NSG 300 Introduction to Patient Care** Stone, Staff  
An introduction to basic concepts of nursing with emphasis on interpersonal relationships and beginning technical skills. Three credit hours
- NSG 301 Medical-Surgical Nursing I** Talbot, Staff  
The nursing care of adults with health problems, present or potential, arising from aging or a pathophysiological condition. The nursing process of assessment, planning, intervention and evaluation is utilized. Learning experiences in the classroom and clinical laboratory are closely correlated with NSG 303/304 for integration of nursing concepts basic to both areas of clinical practice. Seven credit hours
- NSG 302 Medical-Surgical Nursing II** Talbot, Staff  
A continuation of NSG 301. Seven credit hours
- NSG 303 Nursing of Mothers and Children I** Linehan, Staff  
A family-centered approach to the nursing needs of parents and children in community care agencies. Learning experiences in the classroom and clinical laboratory will be closely correlated with NSG 301/302 for integration of nursing concepts basic to both areas of clinical practice. Seven credit hours
- NSG 304 Nursing of Mothers and Children II** Staff  
A continuation of NSG 303. Seven credit hours
- NSG 400 Advanced Medical-Surgical Nursing** Stone, Staff  
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. Twelve credit hours
- NSG 401 Community Health** Roscoe, Staff  
Concepts and principles basic to the development and maintenance of community health, including theories of ecology, biostatistics, epidemiology, and the organization and delivery of health care. Three credit hours
- NSG 402 Community Health Nursing** Roscoe, Staff  
Concepts of community health and the nursing process essential to the practice of nursing in the community. Six credit hours
- NSG 403 Psychiatric Nursing** Cotton, Staff  
The study of psychodynamic concepts and their application to nursing care. Six credit hours
- NSG 404 Seminar in Nursing** Ivonisin  
Current problems and issues of the profession. Two credit hours
- NSG 295 Independent Study in Nursing I** Staff  
Individualized study in an area of nursing with the permission of the instructor. Two to three credit hours
- NSG 395 Independent Study in Nursing II** Staff  
Individualized study in an area of nursing with the permission of the instructor. Two to three credit hours
- NSG 495 Independent Study in Nursing III** Staff  
Individualized study in an area of nursing with the permission of the instructor. Two to three credit hours
- FN 352 Human Nutrition** Jensen  
Body metabolism and requirements for nutrients by normal individuals. Prerequisites: CHEM 101, CHEM 102 or equivalent, and BIO 111. Three credit hours

## **THE BUREAU OF CONTINUING EDUCATION FOR NURSING**

The overall objective of the Bureau is to provide educational programs for nurse practitioners 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 practitioner, 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 persons 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, University of Maine at Portland-Gorham, Portland campus, 773-2981, Extension 476.

## **THE PEDIATRIC NURSE ASSOCIATE PROGRAM**

The Pediatric Nurse Associate Program is conducted yearly at the Maine Medical Center, in conjunction with the University of Maine at Portland-Gorham. 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 and the Maine Medical Center.

Program information may be obtained by contacting Dr. George Hallett at the Maine Medical Center.

## **THE FAMILY NURSE ASSOCIATE PROGRAM**

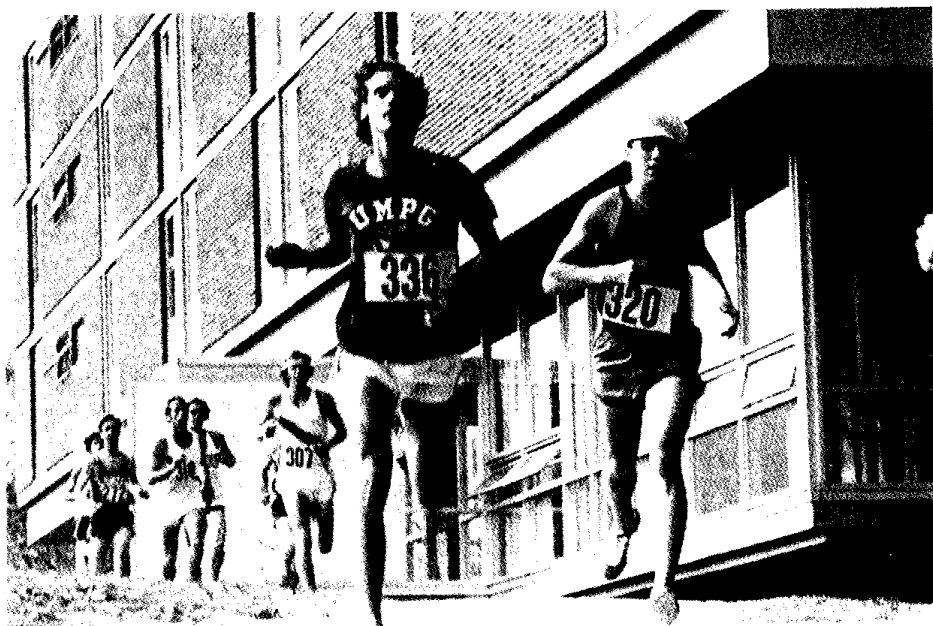
The Family Nurse Associate Program is conducted as a non-credit certificate program through the University of Maine at Portland-Gorham. It is designed to enable the professional nurse to assume an expanded role in providing health care to adults.

The Program has three phases: a six-month pre-phase of directed home study, a four-month full-time formal course at UMPG, and an eight-month field experience.

The curriculum is devoted to history-taking, physical examination, simple laboratory procedures, common adult medical problems, public health nursing principles, intensive clinical teaching, and physician-supervised clinical practice in community health facilities.

All applicants must be sponsored by, and return to an agency, institution, or doctor's office, where they will be able to function in this role for their field experience. Priority will be given to those working in areas of greatest need.

Program information may be obtained by contacting Dr. Doris Pennoyer, University of Maine at Portland-Gorham, Portland campus, 773-2981, Extension 416.



## Division of Physical Education and Intercollegiate Athletics

PROFESSOR RICHARD A. COSTELLO, Director  
PROFESSOR JAMES V. SULLIVAN, Associate Director

Associate Professors Folsom, Goodwin, Hodgdon, Sturgeon; Assistant Professors Bouchard, Breton, Martin, Willard; Instructors Drew, Raybould, Thomas.

### Goals and Objectives

The goals and objectives of this division are to provide course offerings, programs, and services in our speciality 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 are numbered PE 100 to PE 197 and 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 Liberal Arts or the School of Nursing, or for four-year Business Administration or Accounting majors in the School of Business and Economics.

**PE 100 Foundations of Physical Education****Staff**

Designed to inform the student of the key concepts of exercise and activity while helping the student assess personal needs in reference to current and future exercise and physical activity. Lecture and laboratory.

One-half credit hour

**PE 101 through 197 inclusive****Staff**

Performance courses in many activities designed for the beginner. Actual practice and competitive play are stressed when appropriate. Continuing Registration.

One-half credit hour

PE 101	Handball	PE 175	Badminton
PE 102	Racquetball	PE 177	Candlepin Bowling
PE 103	Physical Fitness	PE 179	Folk Dance
PE 104	Squash	PE 180	Dance
PE 105	Weight Training	PE 181	Modern Dance
PE 106	Wrestling	PE 182	Fencing
PE 110	Canoeing	PE 183	Figure Skating
PE 112	Cycling	PE 184	Golf
PE 113	Cross-Country	PE 185	Gymnastics
PE 114	Snow-Shoeing	PE 186	Jogging
PE 115	Scuba Diving	PE 187	Karate
PE 116	Hiking	PE 188	Lacrosse for Women
PE 117	Small Boat Handling	PE 189	Soccer
PE 118	Roller Skating	PE 190	Skiing
PE 119	Horsemanship	PE 191	Softball
PE 120	Fly Fishing	PE 192	Basic Swimming
PE 134	Basketball for Women	PE 193	Swimming
PE 135	Field Hockey for Women	PE 194	Tennis
PE 136	Slimnestics for Women	PE 195	Volleyball
PE 137	Tumbling for Women	PE 196	Self-Defense for Women
PE 140	Ballet	PE 197	Rhythms
PE 174	Archery		

**PROFESSIONAL COURSES IN PHYSICAL EDUCATION****PE 202 College Health****Costello**

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.

Two credit hours

**PE 203 Athletic Training****Drew**

Care and prevention of athletic injuries; the use of proper field equipment, support methods, therapeutic modalities, pharmacology in athletics, and training techniques.

Three credit hours

**PE 204 First Aid and Safety****Drew**

Lectures and laboratory experiences in the utilization of first aid skills and techniques as prescribed by the American Red Cross.

Two credit hours

**PE 205 Rhythmic Activities****Breton**

To develop skills, techniques, understandings for competency in rhythms, folk dance, and square dance.

One credit hour

**PE 207 Gymnastics****Staff**

To develop skills, techniques, and understandings for competency in conditioning exercises, tumbling apparatus, and free exercise. (Open to women only)

One credit hour

**PE 208 Folk and Square Dance Workshops****Staff**

A beginning, intermediate, and advanced affiliation program with the Maine Folk Dance Camp. One credit hour

**PE 209 Officiating Women's Basketball****Raybould**

Study and discussion of the rules as well as practical experience in the techniques of officiating women's basketball. Practical and written tests will be given. Opportunity to become a rated DGWS (Division of Girls' and Women's Sports) official. (Offered each year) Two credit hours

**PE 210 Officiating Field Hockey****Hodgdon**

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. (Offered in alternate years) Two credit hours

**PE 303 Coaching Women's Basketball, Philosophy and Methods****Raybould**

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. Two hours lecture, two hours lab per week. (Offered Fall Semester only, even years) Three credit hours

**PE 304 Teaching Physical Education in the Elementary School****Hodgdon**

A basic course for prospective KP/elementary teachers to acquaint them with various areas of Physical Education. Topics include: philosophy and objectives of PE; rhythms, dance, and movement exploration; basic motor skills and activities; first aid and safety; outdoor education; posture; program planning; and PE for atypical children. Practical experience with children will be included. This course will be team taught and will preview areas which can be elected for in-depth study. Three credit hours

**PE 305 Coaching Track and Field, Philosophy and Methods****Martin**

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. Two hours lecture, two hours lab per week. (Offered in alternate years) Three credit hours

**PE 306 Movement Education in Elementary and Secondary Schools****Goodwin**

This course is designed to help the prospective teacher in planning balanced units of instruction to meet the needs of boys and girls — keeping in mind the importance of engaging in activities which present challenges, having opportunities to be creative and participating in the planning. Children from grades one to six are part of the experience. Activities based on movement skills are stressed. Also traditional and contemporary dance movements, movement exploration, creative activities. The work can also be applied to all ages, including college and recreational groups. Two hours lecture, two hours lab per week. Three credit hours

**PE 308 Physical Education for the Mentally Retarded****Costello, Sullivan**

This course is planned to help the student understand corrective physical education with emphasis on the mentally retarded children in a variety of activities, including games, relays, tumbling, apparatus, swimming, and bowling. Investigation of the causes and incidence of mental retardation is also undertaken. Three credit hours

**PE 311 Coaching Soccer, Philosophy and Methods****Bouchard**

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. (Offered in alternate years) Three credit hours

**PE 312 Coaching Football, Philosophy and Methods****Sullivan**

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. Two hours lecture, two hours lab per week. (Offered in alternate years) Three credit hours

**PE 314 Organization and Administration of Athletics**

**Costello, Hodgdon**

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. Three credit hours

**PE 315 Coaching Field Hockey, Philosophy and Methods**

**Hodgdon**

Analysis of the techniques and methods of coaching field hockey with emphasis on stick work, team strategy, and practice organization. Two hours lecture, two hours lab per week. Three credit hours

**PE 316 Coaching Volleyball, Philosophy and Methods**

**Willard**

Fundamentals of individual skills, team strategy, practice organization, and team play are emphasized. Two hours lecture, two hours lab per week. Three credit hours

**PE 318 Coaching Gymnastics, Philosophy and Methods**

**Braton**

Analysis of skills fundamental to competitive gymnastics with emphasis on techniques of coaching floor exercise, uneven parallel bars, vaulting, and balance beam. Judging skills is also developed. Two hours lecture, two hours lab per week. Three credit hours

**PE 324 Dance Methods and Materials for Teaching**

**Goodwin**

Theory and practice of methods of teaching dance on elementary, secondary, college, and professional levels; curricular materials and evaluation procedures. Three credit hours

**PE 330 Coaching Men's Basketball, Philosophy and Methods**

**Sturgeon**

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. Two hours lecture, two hours lab per week. (Offered Fall Semester only, even years) Three credit hours

**PE 331 Coaching Golf, Philosophy and Methods**

**Costello**

A four week concentrated course dealing primarily with team selection, match strategy, scheduling, equipment, and basic fundamentals of golf instructional techniques. One hour lecture, two hours lab per week. (Offered in alternate years) One credit hour

**PE 332 Coaching Tennis, Philosophy and Methods**

**Martin**

A four week concentrated course with emphasis on match strategy, player selection, and instructional techniques for individual and team play. One hour lecture, two hours lab per week. (Offered in alternate years) One credit hour

**PE 333 Coaching Skiing, Philosophy and Methods**

**Cole**

A four week concentrated course emphasizing the methods of team selection, race strategy, and instructional techniques. One hour lecture, two hours lab per week. (Offered in alternate years) One credit hour

**PE 334 Coaching Cross Country, Philosophy and Methods**

**Thomas**

An eight week course of study with emphasis on training techniques, race strategy, and practice organization. One hour lecture, one hour lab per week. One credit hour

**PE 335 Coaching Softball, Philosophy and Methods**

**Hodgdon**

Areas of emphasis are team selection, practice organization, techniques of instruction, and game situations in softball. Two hours lecture, two hours lab per week. (Offered in alternate years) Three credit hours

**PE 336 Coaching Baseball, Philosophy and Methods**

**Bouchard**

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. Two hours lecture, two hours lab per week. (Offered in alternate years) Three credit hours



**PE 391 Field Experience in Coaching****Staff**

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 UMPG staff member who is responsible for that coaching area. Prerequisite: Permission of instructor.

One to three credit hours

**Certificate in Athletic Coaching**

The Course of Study in Athletic Coaching is designed to assist in preparing those students who are assigned coaching responsibilities during their professional teaching career. It is a sequence of courses related to the coaching fields which students may take within the electives available in their undergraduate program.

Students are admitted to the program after an interview with members of the Division of Physical Education and Athletics screening committee. All students admitted to the Course of Study in Athletic Coaching are constantly evaluated and must maintain acceptable academic and professional standards to remain in the program. Each student is assigned an adviser from the Division to aid in scheduling and evaluation of their program. All courses are open to all students at UMPG on an elective basis.

Upon successful completion of the required 15 credit hours, the student will receive a certificate of accomplishment signed by the Division Director. Proper notation will also be made on the official student transcript.

**Course of Study in Athletic Coaching****15 credits****Required Courses (Men)**

PE 203	Athletic Training (Care and Prevention of Injuries)	3 credits
PE 314	Organization and Administration of Athletics	3 credits
PE 391	Field Experience in Coaching (Taken during sophomore or junior year)	1-3 credits

**Elective Courses**

PE 305	Coaching Track and Field, Philosophy and Methods	3 credits
PE 311	Coaching Soccer, Philosophy and Methods	3 credits
PE 312	Coaching Football, Philosophy and Methods	3 credits
PE 330	Coaching Men's Basketball, Philosophy and Methods	3 credits
PE 331	Coaching Golf, Philosophy and Methods	1 credit
PE 332	Coaching Tennis, Philosophy and Methods	1 credit
PE 333	Coaching Skiing, Philosophy and Methods	1 credit
PE 334	Coaching Cross Country, Philosophy and Methods	1 credit
PE 336	Coaching Baseball, Philosophy and Methods	3 credits

**Required Courses (Women)**

PE 203	Athletic Training (Care and Prevention of Injuries)	3 credits
PE 314	Organization and Administration of Athletics	3 credits
PE 391	Field Experience in Coaching (Taken during sophomore or junior year)	1-3 credits

**Elective Courses**

PE 303	Coaching Women's Basketball, Philosophy and Methods	3 credits
PE 305	Coaching Track and Field, Philosophy and Methods	3 credits
PE 315	Coaching Field Hockey, Philosophy and Methods	3 credits
PE 316	Coaching Volleyball, Philosophy and Methods	3 credits
PE 318	Coaching Gymnastics, Philosophy and Methods	3 credits
PE 332	Coaching Tennis, Philosophy and Methods	1 credit
PE 333	Coaching Skiing, Philosophy and Methods	1 credit
PE 335	Coaching Softball, Philosophy and Methods	3 credits



# Graduate Studies

ROBERT M. YORK, Dean  
ELIZABETH F. KERR, Assistant Dean

Currently, UMPG offers programs leading to the following graduate degrees: Master of Business Administration, Master of Science in Adult Education, Master of Science in Education, and Master of Engineering. In addition, a program leading to the degree of Master of Library Service is offered in cooperation with the University of Maine at Orono, which grants the degree in that program. Information concerning each of these programs may be obtained from the Office of Graduate Studies, 103 Corthell Hall, UMPG, Gorham, Maine 04038.

Application for admission to a program of graduate study should be made to Dr. Robert M. York, Dean of Graduate Studies, 103 Corthell Hall, UMPG, Gorham, Maine 04038, on the form provided for this purpose. In order to be admitted to a program of graduate study, an applicant must have received a baccalaureate degree from an accredited college or university and, as judged by the previous scholastic record or otherwise, must show promise of ability to pursue advanced study and research.

All applicants, except those for the M.B.A. program, are required to provide the results of their performance on either the Graduate Record Examination or Miller Analogies Test. In the case of the GRE the results should include the scores obtained on the general aptitude portion of the examination and on **the appropriate advanced test**. Applicants for the Master of Business Administration program should present scores from the Admission Test for Graduate Study in Business in lieu of GRE scores or MAT scores.

An application is not considered complete until all the required transcripts, the appropriate test scores, and letters of recommendation are on file. A \$10, non-returnable fee is required at the time of application. All material sent in support of an application for admission becomes the property of UMPG and will not be returned to the student.

An applicant's admission status will be one of the following: Regular, Conditional, Non-Degree, or Transient.

# LISTINGS OF GRADUATE PROGRAMS

## MASTER OF BUSINESS ADMINISTRATION

Material describing the program leading to the degree of Master of Business Administration is provided in the section of this catalog dealing with the School of Business and Economics.

## MASTER OF ENGINEERING

Material describing the program leading to the degree of Master of Engineering is provided in the section of this catalog dealing with Physical Sciences and Engineering.

## MASTER OF SCIENCE IN EDUCATION

### THE CLASSROOM TEACHER (K-12) – 33 CREDITS

- 12-24 credit hours in Liberal Arts
- 6-18 credit hours in Professional Education
- 3 credit hours in EDU 550 Research Seminar
- Comprehensive Examinations

•A minimum of 9 hours must be completed in one of the following disciplines: English, Geography, History, Mathematics, Psychology, Science, or Sociology.

### COGNATE AREA IN MATHEMATICS (K-8)\* – 33 CREDITS

18-24 credit hours in Mathematics\*\* from:

- MS 502 Number Systems
- MS 503 Informal Algebra
- MS 504 Informal Geometry
- MS 505 Logic and the Nature of Proof
- MS 506 Foundations of Mathematics
- MS 507 The Real Numbers
- MS 508 The Theory of Numbers
- MS 509 Topics in the History of Mathematics
- MS 514 Analysis I
- MS 515 Analysis II
- MS 524 Probability and Statistics
- MS 528 Computer Programming I
- MS 532 Geometry
- MS 545 Abstract Algebra

6-12 Credit hours in Professional Education from:

- EDU 555 Current Research in Mathematics Education
- EDPY 560 Psychology of Learning
- MSED 512 Newer Practices in Elementary Mathematics
- MSED 513 Laboratory and Field Experiences in Mathematics Education
- MSED 514 Selected Topics in Mathematics Education

3 credit hours from:

- EDU 550 Research Seminar in Professional Education

\*Graduate students matriculated in the Master of Science in Education Classroom Teacher program who wish to work toward the Cognate Area in Mathematics Certificate must notify the Dean of Graduate Studies of their intentions. The Dean will assign an adviser who will assist the student in selecting an appropriate sequence of Mathematics courses totaling 18 hours.

\*\*Five-hundred level courses in Mathematics are reserved for in-service elementary teachers and may not be taken for credit by other students except with the permission of the Dean of Graduate Studies. In addition to their degree, teachers who satisfactorily complete the Cognate Area in Mathematics will receive a certificate from the Mathematics Department countersigned by the Dean of Graduate Studies.

## ELEMENTARY AND SECONDARY HIGH READING

### 12-18 credit hours in Professional Education

- EDU 511 Reading Synthesis in the Middle Grades
- \*EDU 512 Sequential Development of the Reading Domain
- \*EDU 514 Teaching Language Arts in the Elementary School
- \*EDU 515 Children's Literature
- EDU 536 Innovations in Reading
- \*EDU 537 Reading Remediation
- EDU 538 Analysis of Reading Difficulties (Grades 7-12)
- \*EDU 539 Clinical Practices in Reading (Clinic)
- EDU 540 Learning Disabilities
- EDU 571 Introduction to Counseling

### 12-18 credit hours in Liberal Arts

- \*EDPY 521 Individual Psychological Testing
- EDPY 560 Psychology of Learning
- EDPY 569 Psychology of Motivation
- EDPY 571 Psychopathology for Educators
- EDPY 575 Psychology of the Exceptional Child
- \*EDPY 582 Psychological Measurement and Evaluation
- ENG 503 Modern Short Story
- ENG 530 History of the English Language
- ENG 531 Linguistics

### 3 credit hours in Research Seminar

Comprehensive Examination

\*Required courses

## INDUSTRIAL EDUCATION – 33 CREDITS

### 6-15 credit hours in Industrial Education

### 9-18 credit hours in Liberal Arts

### 6 credit hours in Professional Education

### 3 credit hours in EDU 550 Research Seminar

Comprehensive Examination in Industrial Education

## ELEMENTARY GUIDANCE

### 9-18 credit hours in Counselor Education as follows:

- \*EDU 570 Introduction to School Guidance Services
- \*EDU 571 Introduction to Counseling
- EDU 572 Occupational and Educational Theory and Information
- EDU 586 Internship in Guidance (K-8)
- EDU 590 Practicum in Counseling (K-8)

### 12-18 credit hours in Psychology and/or related areas as follows:

- EDU 537 Reading Remediation (K-6)
- EDU 540 Learning Disabilities
- \*EDPY 521 Individual Psychological Testing
- \*EDPY 562 Group Process and Procedure
- \*EDPY 567 Child Psychology
- EDPY 568 Adolescent Psychology
- EDPY 575 Psychology of the Exceptional Child
- \*EDPY 582 Psychological Measurement and Evaluation

### 3 credit hours in Research Seminar

Comprehensive Examination

\*Required for Elementary Counselor's Certificate

## SECONDARY GUIDANCE

12-18 credit hours in Counselor Education as follows:

- \*EDU 570 Introduction to School Guidance Services
- \*EDU 571 Introduction to Counseling
- \*EDU 572 Occupational and Educational Theory and Information
- EDU 586 Internship in Guidance (7-12)
- \*EDU 590 Practicum in Counseling (7-12)

12-18 credit hours in Psychology and/or related areas as follows:

- EDU 538 Analysis in Reading Difficulties (7-12)
- EDU 540 Learning Disabilities
- EDPY 521 Individual Psychological Testing
- \*EDPY 562 Group Process and Procedure
- EDPY 567 Child Psychology
- \*EDPY 568 Adolescent Psychology
- EDPY 575 Psychology of the Exceptional Child
- \*EDPY 582 Psychological Measurement and Evaluation

3 credit hours in Research Seminar

Comprehensive Examination

\*Required for Secondary Counselor's Certificate

## ELEMENTARY ADMINISTRATION – 33 CREDITS

12-18 credit hours in Liberal Arts

- EDPY 560 Psychology of Learning for Educators or
- EDPY 561 Psychopathology for Educators is required

12-18 credit hours in Professional Education as follows:

- EDU 508 Supervision in the Public Schools
- EDU 509 Elementary Administration

6-12 credit hours to be elected from the following courses:

- EDU 530 Evaluating Pupil Achievement
- EDU 533 School Law
- EDU 534 School Personnel Administration
- EDU 570 Introduction to School Guidance Services
- EDU 583 Public Relations
- EDU 589 School Finance

3 credit hours in EDU 550 Research Seminar

Comprehensive Examination in Administration

## SECONDARY ADMINISTRATION – 33 CREDITS

12-18 credit hours in Liberal Arts

- EDPY 560 Psychology of Learning for Educators or
- EDPY 561 Psychopathology for Educators is required

12-18 credit hours in Professional Education as follows:

- EDU 507 Secondary Administration
  - EDU 508 Supervision in the Public Schools
- 6-12 credit hours to be elected from the following courses:
- EDU 530 Evaluating Pupil Achievement
  - EDU 533 School Law
  - EDU 534 School Personnel Administration
  - EDU 570 Introduction to School Guidance Services
  - EDU 583 Public Relations
  - EDU 589 School Finance

3 credit hours in EDU 550 Research Seminar

Comprehensive Examination in Administration

The programs in Administration and Guidance are designed to satisfy state certification requirements for the elementary principal or counselor (K-8) and the secondary principal or counselor (7-12). It is assumed that candidates in the Guidance programs hold the necessary teaching certificate and will have completed a minimum of two years of successful teaching by the time their graduate program is completed. Candidates in the Administration programs must have completed three years of successful teaching.

## MASTER OF SCIENCE IN ADULT EDUCATION

This program of 33 graduate credits offers a choice of 18 credit hours of concentration in Classroom Management, as follows:

### CONCENTRATION IN ADMINISTRATION

#### 18 Credit Hours

EDUA 527	Growth and Development of Adult Education
EDUA 528	Psychology of Adult Learning
EDUA 529	Curriculum Construction for Adults
EDUA 530	Administration of Adult Education
EDUA 531	Leadership for Change
EDUA 540	Internship, Career Exploration or
EDUA 541	Internship, the Adult in the Community

### CONCENTRATION IN CLASSROOM MANAGEMENT

#### 18 Credit hours

EDUA 505	Preparation of Instructional Materials
EDUA 527	Growth and Development of Adult Education
EDUA 528	Psychology of Adult Learning
EDUA 529	Curriculum Construction for Adults
EDUA 532	Methods and Techniques of Teaching Adults
EDUA 540	Internship, Career Exploration or
EDUA 541	Internship, the Adult in the Community

### ADDITIONAL REQUIRED CREDITS

12 credit hours in electives from non-related areas or the following:

EDUA 533	Paraprofessional in Adult Education
EDUA 535	Teaching Reading to Adults

3 credit hours in Research Seminar  
Comprehensive Examination

## MASTER OF LIBRARY SERVICE — 36 CREDITS

This program is operated jointly by the University of Maine at Portland-Gorham and the University of Maine at Orono. All credits may be earned at either campus or appropriate courses may be completed at both.

There is a required core of twenty-one credit hours as follows:

Cataloging and Classification	3 credits
One of the following:	
Advanced Cataloging and Classification	3 credits
Technical Services in Libraries	3 credits
Introduction to Reference Materials and Services	3 credits
Two of the following:	
Subject Reference Sources	3 credits
Literature of the Social Sciences	3 credits
Literature of the Humanities	3 credits
Literature of Science and Technology	3 credits
Library Organization and Administration	3 credits
Selection of Library Materials	3 credits

In addition, enrollees will elect nine credits in other courses in Library Service. Enrollees may elect an additional six credits from appropriate courses outside Library Service.



# School of Law

BERT S. PRUNTY, Dean

Professors Orlando E. Delogu, Donald L. Garbrecht, Edward S. Godfrey, John A. Spanogle, L. Kinvin Wroth; Associate Professors Stephen R. Feldman, David D. Gregory, Arthur B. LaFrance, Raymond G. McGuire, Judy R. Potter, Merle W. Loper, Martin A. Rogoff, Melvyn Zarr; Lecturers James H. Bonney, David B. Hawkes, Edwin A. Heisler, William F. Julavits (Assistant Dean), Leonard M. Nelson, Richard E. Poulos.

## History and General Description

The University of Maine School of Law, established in Portland in 1961, is the successor of the university's college of law which existed in Bangor from 1898 to 1920. The school is located on the undergraduate campus of the University in Portland, in a new building of unique architectural design, where the law school shares facilities with the Advanced Study and Research Center.

The research activities of the law students and faculty already extend over a wide range of social problems, and the proximity of the law school to the various institutes in the Research Center will foster continuing interdisciplinary study. A distinctive feature of the school is the close working relationship among students and faculty resulting in part from the small size of classes.

The school is a charter member of the Association of American Law Schools, having resumed membership in 1966, and is on the fully approved list of the American Bar Association. As an element of the University of Maine, the school is accredited by the New England Association of Colleges and Secondary Schools.

## Library and Physical Facilities

The library, containing nearly 100,000 volumes, provides a sound working collection of legal and collateral materials. The new building has space for expansion to 150,000 volumes. An integral part of the library program is a course of instruction to students in legal research, beginning early in the first year and continuing through the senior year as an adjunct of the senior thesis program.

## Basic Program of Study and Degree Requirements

The law school is on the semester basis, with 88 semester credits required for the J.D. degree. The first year curriculum, including work in the basic legal subjects, is required of all students. Through the case-and-problem method of instruction, the student has an opportunity to apply, compare, and test legal concepts in varying situations, using legal precedents and authorities from all jurisdictions, as well as relevant materials drawn from other disciplines. The perspective is national, although statutes and rules peculiar to Maine are noted to some extent. Classroom work is supplemented by programs of legal writing, drafting, advocacy, and clinical practice designed to promote professional skills. Within this framework the successful student comes to understand basic principles of law, their purposes and social origins, and the processes by which legal institutions grow.

The school has a writing program designed to develop the student's skill in research, writing, and advocacy. In the first year the program is devoted to legal analysis and writing, with emphasis on criticism and rewriting. In the second year a student may participate in a moot court program in which the student prepares a formal brief upon an assigned legal issue and argues the position orally before a moot court. In the third year each student is required to prepare and submit a research paper on some topic determined by the student in consultation with a faculty adviser. The student may satisfy this requirement by preparation during the third year of a note or comment in publishable form for the *Maine Law Review*. The thesis affords the senior law student an opportunity to explore in depth some topic that may not be treated in the regular curriculum in which the student has developed a special interest.

The curriculum is taught by a resident faculty of fourteen members, plus occasional lecturers from bench and bar.

## Special Programs

Third-year students in good standing are permitted under special rules to represent indigent clients before any state court in Maine provided they are properly supervised in a public agency or legal assistance office. Some third-year students will be authorized under similar rules to represent the state in prosecutors' offices in counties near Portland. The clinical practice courses are specifically offered to help the student further develop and refine skills in advocacy and negotiation. Junior and senior students who are interested in serving as research assistants to professors are often invited to do so.

## Activities

Law students participate on many university committees and councils concerned with governance of the University of Maine at Portland-Gorham. The *Maine Law Review*, published twice a year by law students, concerns itself with national and state legal problems, with some emphasis on matters of current interest to the public. The Student Bar Association, which performs the usual functions of student government, has a special committee which researches problems referred to it by lawyers and judges. The association is partly financed with the proceeds from such research. The Law Students Civil Rights Research Council gives research assistance in civil rights cases, particularly those arising in Maine.



## **Students**

Most of the law students are from Maine and other New England states. During 1972-73 there were 190 students, of whom twenty-two were women; the student body included graduates of 70 colleges and universities.

## **Admission**

An applicant must hold a bachelor's degree from an accredited college or university and must take the Law School Admission Test before entering law school. Transcript evaluation by the Law School Data Assembly Service is required except in unusual circumstances. There are no specific prerequisites for an undergraduate curriculum, but the law school offers in its own catalog some suggestions regarding pre-law study.

Beginning students are admitted only in September; transfer students into the upper classes may be admitted at the beginning of the spring semester only in extraordinary circumstances. Written recommendations are required, but personal interviews are not encouraged. The deadline for applications is February 15, and applications must be completed by April 1, 1974; applications received after February 15 will be processed only if the lateness is satisfactorily explained.

Because admission has become extremely competitive, those who show the highest promise of effective performance will be chosen from all the applicants. Although the admissions committee considers many factors in the records of applicants, academic performance in college and Law School Admission Test scores are evidence to which the committee necessarily attaches considerable weight in making its choices. In the class entering in September 1972, the mean LSAT score was 613 and the mean grade-point average was 3.1 on a 4-point scale. The averages are expected to be higher for the class entering in 1973.

## **Expenses and Financial Aid**

Residents of New England will be charged \$550 for tuition and fees for the year 1973-74; non-residents, \$1,650. Expenses for a single student are estimated at \$2,500 plus tuition and fees. Scholarships and loans are awarded by the university student aid office on the basis of need to the extent that funds are available.

## **Housing**

Most law students live in apartments in the city of Portland or suburban homes. There may be a few dormitory rooms available for law students in the undergraduate dormitories at the Gorham campus of the University of Maine at Portland-Gorham. It is recommended that new students come to Portland a few days before school opens in order to find suitable housing.

## **Correspondence**

Registrar, University of Maine School of Law, 246 Deering Avenue, Portland, Maine 04102.

## CENTER FOR RESEARCH & ADVANCED STUDY

The Center for Research and Advanced Study is dedicated to practical and applied research conducted through a multi-disciplinary mode of problems which presently or potentially confront the State of Maine.

The Center, which opened its doors in the fall of 1972, already houses three Institutes dealing with the areas of Human Services, the Environment, and Economics. Three more Institutes, dealing with Education and Manpower Training, Law, and Government, will ultimately be added.

The Center also houses a major Biomedical Research activity, which is concerned with coronary disease research.

Additionally, the Center serves as the clearing house for all research activities carried on within the University of Maine at Portland-Gorham community and assists in the development of research projects valuable to the UMPG community.

The Center shares its building with the University of Maine Law School. The Law School occupies the bottom two and one-half floors and the remaining four and one-half floors are dedicated to the Center for Research and Advanced Study.

## Continuing Education Division

WILLIAM G. MORTENSEN

Director of Continuing Education and Public Service

WILLIAM U. SMALL

Associate Director of Continuing Education and Summer Session

John N. Farrar, Director of Counseling, Continuing Education and Summer Session; Raymond P. Kane, Short Course Coordinator; Ellen M. Martel, Administrative Assistant.

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 BY C.E.D.

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 leading 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 with a transfer of applicable credits.

Applicants who satisfy the same admission standards as students enrolled in the day division of UMPG 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.

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 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 010 Business Management I	CSM 030 Marketing and Distribution
CSM 011 Psychology Applied to Business	CSM 040 Production Control*
CSM 012 Legal Aspects of Business*	CSM 041 Electronic Data Processing*
CSM 013 General Economics	CSM 042 Policy Formulation and Administration
CSM 014 Oral Communication	CSM 050 Managerial Accounting I
CSM 015 Written Communication	CSM 051 Managerial Accounting II*
CSM 018 Business Management II	CSM 052 Business Mathematics
CSM 028 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, 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 valuable 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.

CSM 002 Office Administration  
CSM 010 Business Management I  
CSM 012 Legal Aspects of Business  
CSM 013 General Economics  
CSM 014 Oral Communication  
CSM 015 Written Communication  
CSM 018 Business Management II

CSM 028 Human Relations  
CSM 041 Electronic Data Processing  
CSM 042 Policy Formulation and  
Administration  
CSM 050 Managerial Accounting I  
CSM 052 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	Pollution Control	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 U.M.P.G.**

The University of Maine at Portland-Gorham 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 of Maine at Portland-Gorham.

## **VOCATIONAL TECHNICAL EDUCATION**

A program recognizing Occupational and Industrial Experience and awarding college credit through part-time evening and summer courses leading to a Bachelor of Science degree is designed to:

- (a) prepare instructors for the teaching of Vocational-Industrial and/or technical subjects in high schools and post-secondary schools;
- or (b) provide non-teaching majors an opportunity to pursue a collegiate 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, contact Dr. Arthur O. Berry, Director of Vocational Technical Education, U.M.P.G., Gorham, Maine 04038.

## **CRIMINAL JUSTICE PROGRAMS**

The Criminal Justice Program leading to a baccalaureate degree is a complete four-year program with major concentration patterns in Political Science, Sociology, and Criminal Justice sequences. The program is designed to permit each student to select a 36-hour core curriculum sequence in addition to completing all University requirements for the degree.

In addition, two academic-credit Criminal Justice Certificate programs, basic and advanced, are offered in cooperation with the Continuing Education Division. The certificate programs are designed to meet the specific needs of those students who are interested in improving their professional qualifications in areas directly related to the criminal justice system.

Each certificate candidate who is not immediately qualified to meet university entrance requirements is strongly urged to contact the C.E.D. office and arrange for a deferred degree program interview.

The objective of these programs is to provide a basis for examining various activities concerned with the process of criminal justice. Students will receive a broad liberal education in conjunction with their concentration upon specialized areas involved within the criminal justice system.

C.E.D. offers both the degree program in Criminal Justice and a Certificate Program for non-degree candidates. Brochures describing both programs may be obtained from either the Portland or Gorham C.E.D. offices.

## **COMMUNITY SERVICES**

The Continuing Education Division, through the office of the Director of Continuing Education and Public Service, is able to provide community services on a limited basis. Currently the Urban Adult Learning Center project services undereducated adults in adult basic education and is described more fully below.

The community services function of C.E.D. is capable of assisting community groups or individuals on a limited basis. Additional efforts are related to identifying and matching appropriate University resources in various colleges and departments with community requests.

## **THE URBAN ADULT LEARNING CENTER**

The Urban Adult Learning Center (UALC) is an off-campus project of the University, operating in a building in the heart of the Portland Model Cities Neighborhood. It is Maine's first full-time adult education facility, designed to teach reading, mathematics, and language skills to adults whose education has been interrupted.

The basic objective of the UALC is to assist undereducated adults in preparing to cope with the demands of modern living. It directs its energy toward meeting the individual educational needs of each student. Instructors and volunteer tutors are available at the UALC from 9:00 a.m. to 9:00 p.m., Monday through Friday, so that a student may schedule study conveniently. Instruction is offered at all skill levels from elementary reading and mathematics through preparation for the high school equivalency (GED) examination. Special tutoring is available to assist adults with deficient educational backgrounds so that they may enter college and succeed.

The staff of the UALC also offers teacher training to professionals, para-professionals, and University volunteers and practice teachers in the creative use of independent study, tutoring, audio-visual aids and other media, and various educational techniques in a constructive adult education program. All materials and methods used have been carefully researched and tested at the UALC.

# Local Offices Representing Statewide University Functions

Several offices, located in buildings shown on the campus maps near the back of this catalog, are not under the administration of UMPG but represent statewide services of the University of Maine. Among these are the Chancellor's Portland office at 228 Deering Avenue, the Cumberland County office of the Cooperative Extension Service at 15 Chamberlain Avenue, the Portland ETV office for the development of local instructional television at 45 Exeter Street, and the office of the Coordinator of Cooperative Education at 246 Deering Avenue.

## THE CHANCELLOR'S OFFICE

One of the offices of the Chancellor of the University of Maine is located next to the new Law School and Advanced Study and Research Center at UMPG. The Chancellor's office building also houses the Health Science Program Planning Staff of the University of Maine.

## COOPERATIVE EXTENSION SERVICE

A broad variety of services to bring the benefits of the University to families and community groups in both the inner city and also suburban and rural areas is provided by the Cooperative Extension Service of the University of Maine. All of Cumberland County is served by the CES office at 15 Chamberlain Avenue on the Portland Campus. Some programs, such as the annual series for persons preparing for retirement or the seminars on various aspects of family money management for married couples, are normally offered in UMPG classrooms, if space is available. Many of the urban programs are conducted in low-rent housing developments or Model City neighborhood centers, where 4-H clubs adapted to the needs of urban children are developed and training in homemaking and in the planning and cooking of meals utilizing government-surplus foods is provided. CES aides supplement the services of the professional staff in such cases.

In addition to these newer programs for inner city inhabitants, the more traditional programs for residents of suburban and rural areas throughout Cumberland County are continued. The staff of the Portland CES office includes specialists in urban community development, a nutritionist, a district recreation specialist, a dairy specialist, an agricultural specialist, and other county agents. Visiting specialists from the Orono Campus provide added services from time to time. The work of the local and visiting specialists is multiplied through volunteer leaders in community groups scattered throughout the county.

## INSTRUCTIONAL TELEVISION

Instructional television, which is not broadcast for home reception like general educational television but which is beamed directly for use in specific classrooms or other meeting places, is being developed in the Greater Portland area through the services of the Portland ETV office at 45 Exeter Street. One of the recent developments has been the installation of in-service instructional television facilities at major hospitals in the area. Demonstration operations or similar procedures conducted at the University of Vermont Medical School or other facilities are transmitted to the receiving antenna on the roof of Luther Bonney Hall, converted electronically for local transmission, and then beamed to dish antennae mounted on the roofs of local hospitals. In this way, hospital staff members may view the latest surgical or therapeutic techniques on television screens in staff lounge rooms. Both live and taped instructional materials are utilized. This type of development is but one example of the sort of project being developed by the local instructional television office.

## COOPERATIVE EDUCATION

Cooperative education is a method of integrating classroom theory with practical experience. Students alternate specific periods of attendance at the University with specific periods of employment. The word "cooperative" emphasizes that the plan combines the efforts of employers and educators to form a superior total educational program for students. Its primary value is educational. Of secondary importance is the opportunity for students to earn money for college expenses and for employers to find a ready market of good workers.

Under the direction of University Professor Kenneth T. H. Brooks, various programs of cooperative education are being established throughout the University of Maine. At UMPG the Department of Business Administration of the School of Business and Economics now offers one of these programs, as described in this catalog.

Persons desiring further details should correspond directly with Dr. Kenneth T. H. Brooks, University Professor, Coordinator of Cooperative Education, University of Maine, 246 Deering Avenue, Portland, Maine 04102.



# Landmark Dates in the Development of UMPG

- 1773—Construction date of the *McLellan House*, considered to be the oldest brick house in the State of Maine and the oldest building still used by UMPG. It was purchased and renovated by Gorham State College in 1966 and is currently operated as an honor resident dormitory for 16 women students.
- 1780—The approximate date of the construction of the *Cape Cod* building on the Portland Campus. In 1947 it was acquired by purchase of part of the Deering Estate by the trustees of Portland Junior College and has been used for offices ever since.
- 1807—Construction date of the *Academy Building*. Built to house the original Gorham Academy, it was presented to the State of Maine in 1895. In 1966 it was renovated to contain studios, offices, and classrooms for the Art Department.
- 1821—Construction date of the *Art Gallery*, originally built as the Gorham Town Hall. Acquired by Gorham State Teachers College in 1961 for use as a student chapel, it now houses the Gorham Campus Art Gallery.
- 1878—Establishment of *Western Maine Normal School* on the site of the former Gorham Female Seminary approved by the Maine Legislature. The Normal School opened on January 29, 1879, with six faculty members and 85 students.
- Dr. William Corthell* appointed first president of the institution. He served for 27 years, from 1878 to 1905.
- Corthell Hall* built to house the original Western Maine Normal School. Afterward named to honor the first president, it now houses administrative offices, information desk, classrooms and offices of the Music Department, and the Museum of Man.
- 1897—Construction of *Robie Hall*, the first unit of the Robie-Andrews Halls dormitory complex. Robie Hall is named for Governor Frederick Robie, an early benefactor of Gorham.
- 1905—Inauguration of *Dr. Walter F. Russell* as the second president of Western Maine Normal School. He served in this office for 35 years, from 1905 to 1940.
- 1906—The *President's Residence* constructed on the Gorham Campus.
- 1911—The *Industrial Arts Program* established at Gorham.
- 1916—*Andrews Hall* constructed. It is named for Professor Emerita of Music, Miriam Andrews. The dormitory complex called Robie-Andrews Halls contains accommodations for 200 resident women students. Andrews Hall also contains classrooms and laboratories of the audio-visual education program.
- 1927—Graduation date of the first class in the *Kindergarten-Primary Program* at Gorham.
- 1931—Construction date of *Russell Hall*, named for the second president at Gorham. It now contains a 500-seat auditorium with stage, workshop facilities, offices for the Theatre/Communications Department, and a small gymnasium for various recreational activities.
- 1938—*Baccalaureate degrees* awarded to the first graduates of a full four-year program at Gorham.
- 1940—Inauguration of *Dr. Francis L. Bailey* as third president at Gorham. He served for 20 years, from 1940 to 1960.
- 1945—*Gorham State Teachers College* adopted as the new name of the Gorham institution.
- 1947—Part of the former Deering Estate purchased as a campus for *Portland Junior College*, which had previously utilized rented quarters. The land purchased forms the nucleus of the present Portland Campus of UMPG.
- The present *University Bookstore Building*, a military war-surplus building, disassembled at its original location, brought by barge to Portland, and reassembled at its present location on the Portland Campus, together with several other buildings which are no longer standing.

- 1955—*Woodward Hall* constructed to provide dormitory accommodations for 96 resident men students. It was named for a former Vice-President of Gorham, Louis B. Woodward.
- 1956— A *Music Education Program*, to prepare supervisors and teachers of music for the public schools, established at Gorham.
- 1957—*The University of Maine in Portland* established by the Maine Legislature, making the former property of Portland Junior College a part of the University of Maine. Until 1961, only the first two years of the academic programs of the University's College of Liberal Arts and College of Education were available, together with the freshman year of several other University of Maine programs.
- 1958—*Dean Luther I. Bonney*, long-time Dean of Portland Junior College, appointed Dean Emeritus by the University of Maine Board of Trustees, retroactive to July 1, 1957.
- Dr. William L. Irvine* appointed Dean of the University of Maine in Portland. He served in this position for three years until 1961.
  - An *Art Education Program*, to prepare supervisors and teachers of art for the public schools, established at Gorham.
  - The Science Wing of Bailey Hall*, the first unit of the present Bailey Hall complex, constructed at Gorham. It contains classrooms, laboratories, a greenhouse, a science museum, and offices for various physical and biological scientific disciplines.
- 1960—*Payson Smith Hall* constructed at the Portland Campus and named in honor of a prominent Maine educator who had also served with distinction as Commissioner of Education for the Commonwealth of Massachusetts. The lower level contains a large cafeteria, a formal dining room called the College Room, and a small seminar dining room. The main floor now houses the Portland offices for admissions, the registrar, the campus business personnel, student affairs, student aid, testing and counseling, placement, and other services, as well as the Continuing Education Division, the Bureau of Health Professions Education, and the Bureau of University-Community Services. The upper floors contain classrooms; a language laboratory; physics, chemistry, organic chemistry, and geology laboratories; a science lecture hall; the office of the Bureau of Labor Education; and some faculty offices.
- Upton Hall* constructed at Gorham to provide added dormitory and lounge accommodations for women students. The basement now houses the Gorham Campus Bookstore. The building is named for a long-time faculty member, Miss Ethlyn Upton. A second unit, making up the Upton-Hastings complex, was added in 1968.
  - Dr. Kenneth T. H. Brooks* inaugurated as President of Gorham State Teachers College. He served for 10 years, from 1960 to 1970.
- 1961—*The merger of Portland University* and the University of Maine in Portland approved by the Maine Legislature. Portland University had already established a baccalaureate program in Business Administration and a professional School of Law. Following the merger, the latter program was reorganized and developed into the University of Maine School of Law, housed from 1961-72 in the former Portland University building on High Street in downtown Portland. The four-year undergraduate program in Business Administration was moved to the Portland Campus, to become the first four-year program of the University of Maine to be offered in this area. This program has now evolved into the UMPC School of Business and Economics.
- The Library Wing of Bailey Hall* constructed. The collection of library resources in this building accounts for some 75,000 volumes of nearly 265,000 available to UMPC students in the UMPC collections, almost 12,000 microform items of the UMPC total of some 23,000, nearly 3,500 government documents of the UMPC total of nearly 12,000, and more than 750 periodicals of the total of more than 3,000 UMPC library subscriptions. The library section provides reading areas, conference rooms, a study-smoker, and a music-listening area. The east side of the building contains classrooms, conference rooms, faculty offices, and facilities for closed-circuit television.
  - William L. Whiting* appointed Dean of the University of Maine in Portland. He served in this capacity for four years, from 1961 to 1965.
- 1962—Establishment of the *Continuing Education Division* at the University of Maine in Portland. Under the direction of John M. Blake, former Dean of Portland University, acting as a special assistant to the President of the University of Maine, the previous

evening program of Portland University and the Portland extension courses of the University of Maine were consolidated and expanded into a coordinated program.

1963—Construction of *Warren G. Hill Gymnasium* at Gorham. Named for a former Maine Commissioner of Education and graduate of Gorham, the 2,500 seat gymnasium provides facilities for men's and women's physical education, locker rooms, classrooms, and offices for Health Services and Gorham members of the Division of Physical Education and Intercollegiate Athletics.

—*Anderson Hall* constructed at Gorham. Named for Hayden L. V. Anderson, alumnus of Gorham and former Executive Director of Professional Services for the Maine Department of Education, it contains lounges, study areas, and dormitory accommodations for 100 resident men students.

1964—A *Graduate School* established at Gorham.

1965—*Gorham State College* adopted as the official name of the institution at Gorham.

—*Dr. David R. Fink, Jr.*, appointed Dean of the University of Maine in Portland. After serving as Dean for three years, he was promoted to Provost by the Board of Trustees in 1968, in which position he served until joining the Chancellor's staff in 1970.

—Construction of the *Industrial Education and Technology Center* at Gorham. It contains offices, classrooms, and laboratories for conducting programs in industrial arts and vocational-industrial teacher education, providing facilities to teach concepts in the manufacturing, construction, power-transportation, electrical-electronics, graphic communications, and service industries.

—Dedication of *Luther I. Bonney Hall* at Portland, a five-story building named in honor of the Dean Emeritus of the Portland Campus. The main floor contains academic administrative offices and Luther Bonney Auditorium, a modern, air-conditioned lecture hall seating 250 persons. The upper floors contain classrooms, seminar rooms, faculty offices, and specialized quarters for art studios, choral groups, closed circuit and other instructional television, and other audio-visual aids.

—Opening of the *Library Wing of Bonney Hall* at Portland. The two-story wing at the left of the main entrance of Bonney Hall houses approximately 95,000 volumes of the nearly 265,000 books in the UMPG library collections, some 11,000 microform items of the UMPG total of nearly 23,000, and more than 10,000 government documents of the UMPG total of approximately 13,500. Almost 1,600 periodicals, including many scholarly journals, are regularly received. In addition to plentiful study carrels, four rooms called the Quattro Galleries, containing shifting art exhibits and comfortable furniture, provide facilities for smoking, recreational reading, listening to recorded music, and other functions.

1966—A *Secondary Education* program established at Gorham.

1967—A baccalaureate program in the *Liberal Arts* established at Gorham.

1968—Establishment of Gorham State College as a unit of the University of Maine with the official title of *Gorham State College of the University of Maine*.

—*Hastings Hall* constructed at Gorham and named for a long-time faculty member, Miss Mary Hastings. The complex of Upton-Hastings Halls contains lounges and dormitory accommodations for 300 resident women students.

—Acquisition of scattered houses or house lots in the vicinity of Bedford Street and Chamberlain Avenue in Portland to provide quarters for the *Student Union* and various administrative or faculty offices and to enlarge student parking facilities.

1969—Opening of the *Portland Campus Gymnasium and Physical Education Building*. The main gymnasium can seat 2,800 spectators. The building also contains offices, classrooms, Health Center offices, examination rooms, a general purpose corrective and adaptive room, a dance room for women, and a small auxiliary gym for a variety of activities. Two squash courts and two handball courts are located in a wing on the lower level behind the main building.

—Opening of the *Science Building* at the Portland Campus. The main tower of the Science Building, six stories high, has facilities for students in the engineering programs, as described in this catalog, on the ground floor; laboratories for the various biological sciences, as well as offices, seminar rooms, and classrooms, on the second, third, and fourth floors; laboratories and other facilities for the courses in psychology on the fifth floor; and quarters for experimental animals, as well as a greenhouse

for botanical specimens, on the sixth floor. In the two-story wing, the *Southworth Planetarium* is located on the lower and ground-floor levels. The *Portland Computer Center*, ringed about with faculty offices, occupies the second-floor space directly above the *Southworth Planetarium*.

- Rapid increase in the *Baccalaureate Degree programs* offered at the Portland Campus. The facilities offered by the new buildings, coupled with the marked increase in faculty and student body, enabled the University Board of Trustees to authorize, at successive meetings during this period between 1965 and 1970, a number of added programs leading to a baccalaureate degree, with majors in various arts and sciences.
- Opening of the *Classroom Wing of Bailey Hall* at Gorham. This final unit of Bailey Hall contains a 200-seat multi-purpose lecture hall, a student lounge, classrooms, and academic and faculty offices.

-*Bachelor of Arts* degrees awarded to the first group of candidates completing this new program at Gorham.

1970--*Dean Edward S. Godfrey* of the School of Law appointed to serve as Acting Provost of the Portland Campus for the final semester before the administrative formation of the University of Maine at Portland-Gorham on July 1, 1970.

-*Dr. William J. MacLeod*, Professor of Philosophy, appointed Acting President of the University of Maine at Portland-Gorham on July 1, 1970. Dr. MacLeod served for one year during the period of administrative merger of the former University of Maine in Portland, the University of Maine School of Law, and Gorham State College of the University of Maine.

-*Dr. Kenneth T. H. Brooks*, former President of Gorham State College of the University of Maine, created University Professor of Education.

-Opening of the *Dining Center* at the Gorham Campus. It contains a 900-seat dining hall, faculty and Presidential dining rooms, a snack bar, and a student lounge, together with offices and conference rooms for student organizations and activities.

-Opening of the *Tower Residences* at the Gorham Campus. These twin high-rise student residences provide accommodations for 380, with lounge and study facilities.

1971--*Dr. Louis J. P. Calisti* appointed the first President of the University of Maine at Portland-Gorham, effective July 1, 1971. Dr. William J. MacLeod at the same time assumed office as Vice President for Academic Affairs. Dr. Gordon S. Bigelow assumed office as Vice President for Student Affairs.

-*Academic reorganization of the University of Maine at Portland-Gorham*, as a single, integrated University, completed at the opening of the academic year in September 1971. Shuttle-bus transportation permitting students to schedule courses on either campus was established at the same time.

1972--Moving of the University of Maine School of Law to its new home in the lower three floors of the seven-story School of Law and Advanced Study and Research Center building at 246 Deering Avenue, opposite the Portland Campus.

-The Center for Research and Advanced Study was established at 246 Deering Avenue under the direction of *Halsey Smith*.

1973--*Walter P. Fridinger* became Acting President of UMPG in January, following the resignation of *President Louis J. P. Calisti* on January 1, 1973.

-UMPG officially became accredited with full membership in the New England Association of Schools and Colleges for a period of three years. Prior to this time the Gorham campus had been separately accredited and the Portland campus had shared accreditation as part of the Orono campus accreditation.

-The Dickey and Wood Tower Dormitories were officially named in honor of *Miss Edna F. Dickey*, who became Associate Professor Emerita of History, and *Miss Esther E. Wood*, who became Associate Professor Emerita of Social Sciences, after contributing a total of 69 years of service.

-*Dr. N. Edd Miller* appointed the second President of the University of Maine at Portland-Gorham. His appointment was approved by the Board of Trustees on August 23, 1973.

# PERSONNEL

## of the

## University of Maine at Portland-Gorham

(Listing for 1973 - 74, as established on or before July 31, 1973)

### EMERITI

- ANDREWS, MIRIAM E.** (1922-1960) B.S., M.A., Professor Emerita of Music
- 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
- DICKEY, EDNA F.** (1946-1973) University of New Hampshire, B.A., 1933; M.A., 1936; Associate Professor Emerita of History, University of Maine at Portland-Gorham
- PEABODY, MILDRED** (1952-1973) Gorham State College, B.S., 1939; Boston University, Ed.M., 1952; Associate Professor Emerita of Education, University of Maine at Portland-Gorham
- WOOD, ESTHER E.** (1930-1972) Colby College, A.B., 1926; Radcliffe College, M.A., 1929; Associate Professor Emerita of Social Sciences, University of Maine at Portland-Gorham

### PERSONNEL

*The following list includes both teaching faculty and administrative personnel. Dates in parentheses indicate initial year of appointment.*

- <sup>2</sup> **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) Assistant Professor of Mathematics Education; Gorham State College, B.S., 1960; M.S., 1967; Boston University, Ed.D., 1973
- ANDREWS, SAMUEL GEORGE** (1966) Associate Professor of Associate Business Administration; Bobson Institute, B.S.B.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) Assistant 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 and Chairman, Department 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
- <sup>1</sup> **BAIER, LEE S.** (1966) Associate Professor of English; Reed College, A.B., 1948; Columbia University, M.A., 1952; Ph.D., 1965

\*Asterisks indicate those working on federally funded projects. Numbers in the left hand margin are coded as follows:

<sup>1</sup> on leave, Fall semester, 1973

<sup>2</sup> on leave, Spring semester, 1974

<sup>3</sup> on leave, Academic year, 1973-1974

- BAILY, THELMA F.** (1973) Assistant Professor of Social Welfare; University of Pennsylvania, B.A., 1948; Bryn Mawr College, M.S.S., 1962
- BAILY, WALTER H.** (1972) Assistant Professor of Social Welfare; Temple University, B.A., 1951; Bryn Mawr College, M.S.S., 1956
- BALBER, PAULA G.** (1973) Instructor in Nursing; Boston University, B.S., 1969; New York University, M.A., 1970
- BANNER, GERALD T.** (1968) Head Reference Librarian; New School for Social Research, B.A., 1965; Pratt Institute, M.L.S., 1967
- BARKER, GEORGE J.** (1955) Associate Professor of Biology; Gorham State College, B.S., 1951; Boston University, Ed.M., 1958
- BATCHELOR, HELEN** (1972) Director of Equal Employment Opportunity; University of Alabama, B.A., 1944; Syracuse University, M.A., 1954; Ph.D., 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) Instructor in Nursing; Virginia Commonwealth University, B.S.N., 1970; Catholic University of America, M.S.N., 1971
- \* **BEMIS, A. NYE** (1970) Instructor in Education and Assistant Director, Moine Teacher Corps; Gorham State College B.S., 1964; M.S., 1969
- BERNARD, JULES EUGENE** (1963) Professor of English; Yale University, B.A., 1934; M.A., 1936; Ph.D., 1937
- BERRY, ARTHUR O.** (1955) Director 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
- \* **BERUBE, LIONEL** (1970) Associate Director, Upward Bound; University of Maine at Orono, B.A., 1961
- 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 and Chairman, Department 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., Ph.D., 1967
- BISHOP, JOHN SCOTT** (1968) Associate Professor of Psychology; University of New Brunswick, B.A., 1953; Dalhousie University, M.A., 1957; University of London, Ph.D., 1958
- \* **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
- BOUCHARD, JOEY A.** (1968) Assistant Professor of Physical Education; Springfield College, B.S., 1960; M.Ed., 1961; Boston University, C.A.S., 1968
- BOUCHARD, KATHLEEN M.** (1969) Associate Dean of Student Life; 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
- BOWMAN, JAMES A.** (1949) Associate Professor of Educational Psychology; Gorham State College, B.S., 1947; Boston University, Ed.M., 1951
- <sup>3</sup> **BRADBARD, DAVID A.** (1969) Instructor in Mathematics; University of New Hampshire, B.S., 1964; M.S., 1969
- BRADY, JAMES B.** (1969) Cataloger; State University of New York at Albany, B.S., 1967; M.L.S., 1969
- BRANNIGAN, CLAIRE** (1972) Instructor in Nursing; McGill University, B.S.N., 1970
- 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) Accountant

\*federally funded position <sup>1</sup>on leave Fall Sem. <sup>2</sup>on leave Spring Sem. <sup>3</sup>on leave for Acad. Year

- \* **BROOKS, KENNETH T.H.** (1959) University Professor of Education and Director, Cooperative Education Program; University of New Hampshire, A.B., 1947; Boston University, Ed.M., 1948; Ed.D., 1955
- BROWN, ELECTA M.** (1943) Bursar; Shaw's Business College, 1926
- BROWN, HAROLD F.** (1972) Professor of Music and Chairman, Department 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; Bowdoin College, B.A., 1954; University of Maine, M.A., 1959
- BRUCKNER, LAWRENCE A.** (1973) Assistant Professor of Mathematics; Catholic University of America, B.A., 1962; M.A., 1964; Ph.D., 1967
- BULLOCK, WILLIAM B.** (1970) Business Manager; Cornell University, B.S., 1953; M.B.A., 1959
- BURKE, I. MORRILL, JR.** (1959) Associate Professor of English; Bowdoin College, A.B., 1949; University of Washington, M.A., 1951; Columbia University, Ph.D., 1971
- \* **CAMPBELL, RICHARD R.** (1973) Financial Aid Officer
- CARNER, FRANK K.** (1970) Assistant Professor of English; Temple University, B.S., 1964; M.A., 1967
- CARPER, THOMAS R.** (1967) Assistant 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 Liberal Arts 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) Assistant Professor of Industrial Arts; Gorham State College, B.S., 1954; University of Maine, Ed.M., 1964; Boston University, C.A.S., 1971
- <sup>3</sup> **CHABOT, MAURICE JOSEPH** (1965) Assistant Professor of Mathematics; 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
- <sup>1</sup> **CHRONISTER, FLOYD BROWN** (1966) Associate Professor of Education; Conservatory of Music, U.M.K.C., Missouri, B.M., 1953; University of Kansas, B.M.E., 1955; M.M.E., 1959; Ed.D., 1969
- CLARK, ELMER BANKS FRED** (1946) Associate Professor of French and Spanish; University of Florida, B.A.E., 1935; M.A., 1937
- CLARKE, CAROLYN K.** (1968) Periodicals Associate; University of Maine at Orono, B.A., 1968
- <sup>2</sup> **COBB, MERRILL E.** (1966) Professor of Education and Chairman, Department of Secondary Education; University of Maine, B.S., 1949; Ed.M., 1953; University of Massachusetts, Ed.D., 1968
- <sup>2</sup> **COFFIN, RICHARD NEAL** (1964) Associate Professor of English; Bowdoin College, B.A., 1951; Harvard University, A.M., 1952; Boston University, Ph.D., 1962
- COLE, PHILLIP ALBERT** (1957) Professor of History; Boston University, B.S., 1954; M.A., 1955; Ph.D., 1963
- COLE, RONALD F.** (1963) Assistant Professor of Music; Bowdoin College, B.A., 1961; Eastman School of Music, M.A., 1963
- 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 Academic Planning and Institutional Research and Associate Professor of History; Stanford University, B.A., 1957; San Jose State College, M.A., 1960; University of Colorado, Ph.D., 1969
- 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) Associate Cataloger, School of Law; St. Thomas College, M.A.T., 1972
- 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 and Chairman, Department of Elementary 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 and Chairman, Department of Psychiatric Nursing; Simmons College, B.S., 1960; Boston University, M.S., 1962
- 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) Program Development Specialist, Maine Teacher Corps; Centre College, B.A., 1963; University of Wisconsin, M.A., 1964; University of Massachusetts, Ed.D., 1973
- \* **CROTZER, ROBERT E.** (1970) Instructor, Urban Adult Learning Center; Erie County Technical Institute, A.A.S., 1959; Purdue University, B.S., 1964; University of Maine at Portland-Gorham, M.S., 1973
- CROZIER, FRANCIS J.** (1971) Coordinator of Work Experiences for Cooperative Education Program; United States Naval Academy, B.S., 1945; University of Maine at Portland-Gorham, M.B.A., 1971
- \* **CUPRAK, RUTH M.** (1973) Assistant Professor of Elementary Education and Child Development Specialist, Maine Head Start Educational Resource Center; University of Connecticut, B.S., 1944; Tufts University, M.S., 1966
- DAHLSTROM, DONALD LEE** (1971) Director, Criminal Justice Program and Assistant Professor of Political Science; American University, B.S., 1965; Washington State University, M.A., 1969
- DAIVET, YVES FRANCOIS** (1968) Associate Professor of French; Laval College, B.A., 1940; New York University, M.A., 1965; Yale University, M.Ph., 1969
- DAMON, CORA M.** (1973) Reference Librarian; Gorham State College, B.S., 1970; University of Toronto, M.L.S., 1972
- 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) Assistant Registrar; University of Maine at Portland-Gorham, B.A., 1971
- <sup>3</sup> **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) Administrative Coordinator, ESCO Economic Institute; University of Maine at Portland, B.S., 1965; University of Maine at Gorham, M.S., 1970
- DI BENEDETTO, LUCIA A.** (1970) Assistant Professor of French; Emmanuel College, B.A., 1963; Middlebury College, M.A., 1965
- <sup>3</sup> **DIETRICH, CRAIG** (1968) Associate Professor of History; University of Chicago, A.B., 1961; Ph.D., 1970
- DORSEY, F. DONALD, JR.** (1967) Assistant Professor of Biology; Bowdoin College, A.B., 1950; Syracuse University, M.S., 1960; Simmons College, M.S., 1964
- DREW, DAVID** (1972) Instructor in Physical Education, Trainer and Coach; Springfield College, B.S., 1967; M.Ed., 1971
- DUBOWICK, DOROTHY BUNKER** (1968) Assistant Professor of Nursing; Colby College, A.B., 1948; University of Maine at Portland-Gorham, M.S., 1971
- <sup>2</sup> **DUCLOS, ALBERT JOSEPH** (1965) Assistant Professor of Theatre; University of Maine, B.S., 1963; M.A., 1965
- <sup>2</sup> **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, Licence 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
- EASTMAN, JOEL WEBB** (1970) Assistant Professor of History; University of Maine at Orono, B.A., 1962; M.A., 1965; University of Florida, Ph.D., 1973
- \* **EDGECOMB, ALICE DYER** (1969) Extension Agent (Cumberland County), Cooperative Extension Service; Farmington State College, B.S., 1965; Gorham State College, M.S., 1968
- EELLS, MARY ANN** (1969) Dean, School of Nursing and Associate Professor of Nursing; State University of New York, B.S., 1955; University of Rochester, M.S., 1968; Ed.D., 1970

<sup>a</sup>federally funded position <sup>1</sup>on leave Fall Sem. <sup>2</sup>on leave Spring Sem. <sup>3</sup>on leave for Acad. Year



- ELDRIDGE, SUSAN D.** (1972) Bookstore Manager; University of Maine at Portland-Gorham, B.S., 1971
- ELLIS, ANN P.** (1973) Instructor in 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
- EMANUELSON, MILLARD E.** (1966) Lecturer in Business Administration; Colby College, B.S., 1936; Boston University, LL.B., 1951
- 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; 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 at Fitchburg, B.S., 1957; Northeastern University, M.Ed., 1960
- FEIG, KONNILYN G.** (1972) Dean, College of Liberal Arts 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
- 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 and Chairman, Baccalaureate Program in Business Administration; Boston University, B.S., 1955; M.B.A., 1964; C.P.A. (Massachusetts and Maine)
- FINKELHOR, S. DAVID** (1972) Instructor in Social Welfare; Harvard University, B.A., 1968; M.A., 1970
- FISH, CAROLYN WELCH** (1968) Associate Professor of Nursing; Boston University, B.S., 1964; University of North Carolina, M.P.H., 1967
- FISH, LINCOLN T., JR.** (1959) Professor of Mathematics and Chairman, Department of Mathematics; University of Maine, B.S., 1948; M.A., 1949; Boston University, Ed.D., 1951
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\*federally funded position <sup>1</sup>on leave Fall Sem. <sup>2</sup>on leave Spring Sem. <sup>3</sup>on leave for Acad. Year

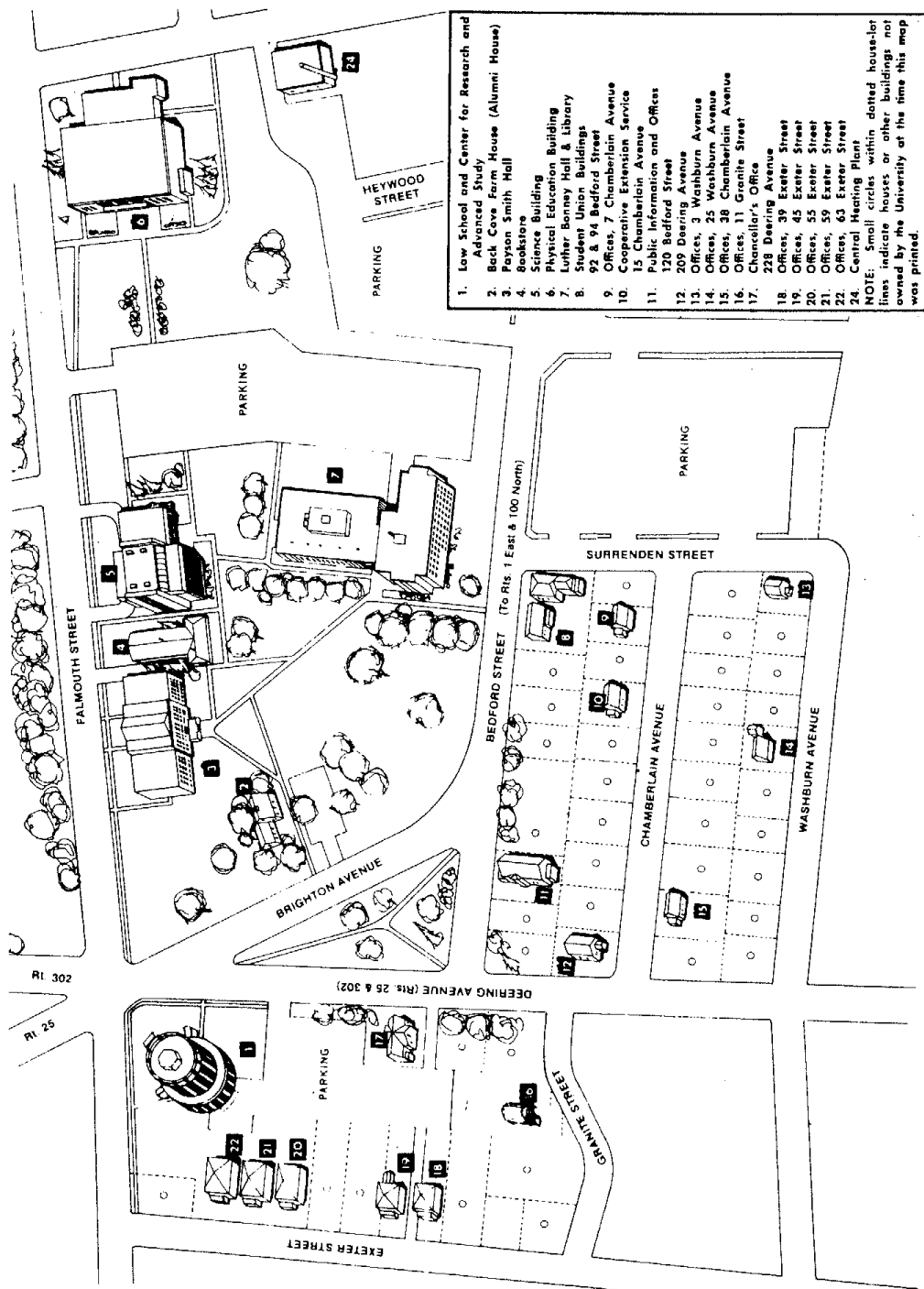


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\*federally funded position <sup>1</sup>on leave Fall Sem. <sup>2</sup>on leave Spring Sem. <sup>3</sup>on leave for Acad. Year

# the Portland campus UNIVERSITY OF MAINE at Portland-Gorham



# the Gorham campus UNIVERSITY OF MAINE at Portland-Gorham

### STUDENT PARKING LOTS

\* indicates student parking lots, which are outlined by heavy borders on this map. From left to right, these are:

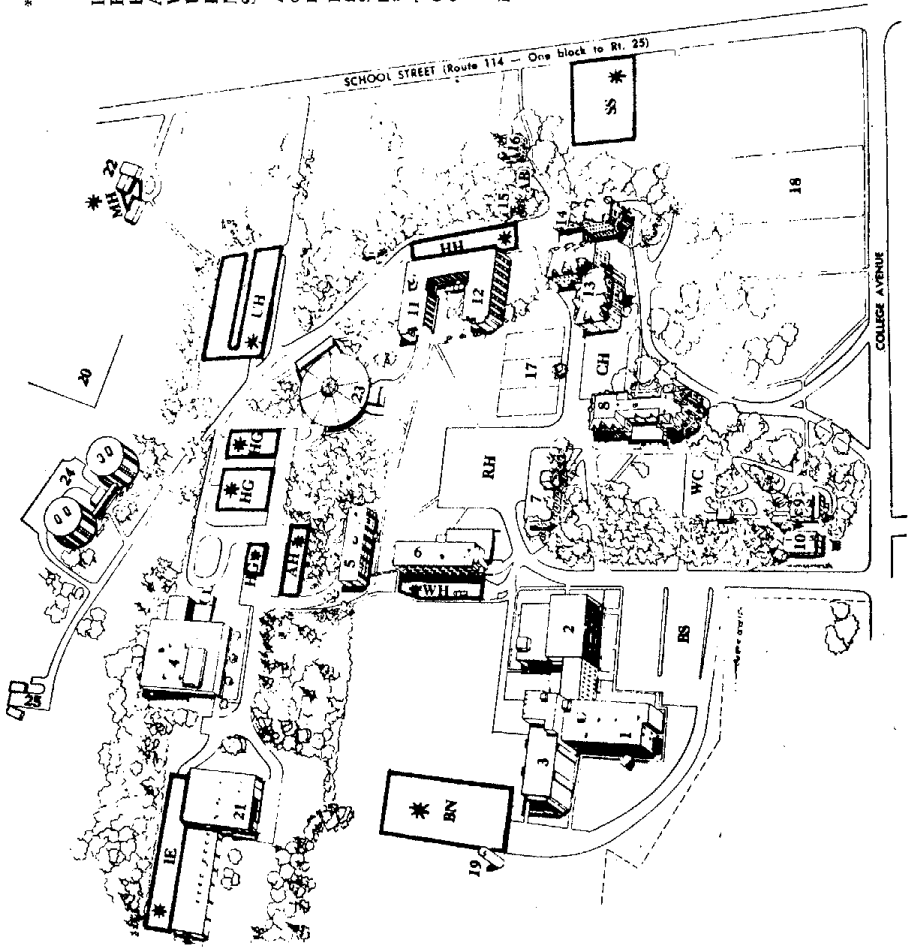
- IE — Industrial Education Center
- BN — Bailey Hall North
- HG — Hill Gymnasium (outlined areas only)
- AH — Anderson Hall
- WH — Woodward Hall
- UH — Upton Hall
- HH — Hastings Hall
- MH — McLellan House
- SS — School Street

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 OH are for faculty and staff only; the BS area is for faculty only. Small areas restricted to faculty-staff parking are provided close to the 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.

### Buildings:

1. Bailey Hall — Science Wing
2. Bailey Hall — Library Wing
3. Bailey Hall — Classroom Wing
4. Warren G. Hill Gymnasium
5. Anderson Hall
6. Woodward Hall
7. Russell Hall
8. Corthell Hall
9. President's Residence
10. All Faith Chapel — Art Gallery
11. Upton Hall
12. Hastings Hall
13. Robie Hall
14. Andrews Hall
15. Maintenance Building
16. Art Building (Academy)
- 17-18. Tennis Courts
19. Water Tower
20. Athletic Field
21. Industrial Education Center
22. McLellan House
23. Student Center — Dining Center
24. Dickey and Wood Towers
25. Heating and Sewage Plant



# Index

- Academic Policies ..... 35-40
  - Add-Drop ..... 38
  - Attendance ..... 35
  - Change of Major ..... 39
  - Class Standing ..... 40
  - Examinations ..... 35
  - Grading System ..... 36
  - Graduation Requirements .. 37, 40
  - Probation ..... 39
  - Suspension ..... 39
  - Withdrawal from University .... 39
- Accounting**
  - courses ..... 158-9, 161-2, 167
- Activities, student ..... 25-27
- Add-drop procedure ..... 38
- Administration, officers of ..... 5-8
- Admission, Continuing
  - Education Division ..... 210
- Admission, Graduate Studies .... 201
- Admission, School of Law ..... 208
- Admission, undergraduate ..... 10-16
- Adult Learning Center ..... 213
- Advanced placement ..... 15
- Advanced Study Center ..... 209
- Advertising course** ..... 162
- Aesthetics course** ..... 108
- African History courses** ..... 88
- Alumni Office ..... 32
- Anatomy courses** ..... 55-56
- Anthropology courses** ..... 78-79
- Applied Courses in the Arts**
  - Art ..... 49-53
  - Music ..... 104-106
  - Theatre/Communications .. 146-149
- Art Appreciation courses** ..... 49-50
- Art courses** ..... 49-53
- Art Education courses** ..... 53
- Art Department ..... 47-53
- Art Major Admission ..... 14
- Art History courses** ..... 49-50
- Art shows and lectures ..... 30-31
- Art Studio courses** ..... 50-53
- Associate Degree
  - Program ..... 10-11, 150-151
- Astronomy courses** ..... 114
- Athletics** ..... 33-34
- Automobile regulations ..... 29
- Band ..... 102
- Bassoon instructor ..... 97
- Bible courses** ..... 63
- Biochemistry course** ..... 116
- Bioengineering course** ..... 58
- Biological Science courses** ..... 55-58
- Biology Department ..... 54-58
- Black Studies courses** ..... 87
- Board of Trustees ..... 5
- Botany courses** ..... 56
- Buildings, history and
  - descriptions ..... 216-219
- Buildings, map locations .... 134-135
- Business Administration courses**
  - in the four-year
  - baccalaureate program .. 161-165
- Business Administration courses**
  - in the two-year associate
  - program ..... 158-161
- Business Administration courses**
  - in the graduate M.B.A.
  - program ..... 166-167
- BUSINESS AND ECONOMICS,**  
SCHOOL OF ..... 150-167
- Business Data Processing**
  - courses ..... 169, 163
- Business Economics courses** .. 164-165
- Business Management
  - Certificate program ..... 210-211
- Bus service between campuses ..... 9
- Calculus courses** ..... 93-94
- Calendar of Academic Year
  - 1973-74 ..... 2
- Career Planning and
  - Placement ..... 27
- Center for Advanced Research
  - and Study ..... 209
- Ceramic courses** ..... 51-52
- Certificate for teachers ..... 168
- Certificate in Athletic Coaching .. 200
- Chancellor and Chancellor's  
Office ..... 219

Change of Major, College, or School .....	39
<b>Chemistry courses</b> .....	115-116
<b>Child Development courses</b> .....	178
<b>Chorus courses</b> .....	102
Clarinet instructor .....	97
<b>Classics courses</b> .....	71-72
Clubs and organizations .....	25-27
<b>COLLEGE OF LIBERAL ARTS</b> ..	41-149
<b>Comparative Literature</b> courses .....	63-64
<b>Computer and Data Processing</b> courses .....	92, 95, 119, 159, 163
<b>Computer Technology course</b> ....	182
<b>Congressional Internship course</b> ..	127
<b>Conservation course</b> .....	118
<b>Continuing Education</b> Division .....	209-213
<b>Cooperative Education</b> .....	152, 215
<b>Cooperative Extension Service</b> ..	214
<b>Counseling and psychological</b> services .....	28-29
<b>Criminal Justice courses</b> .....	130-131
<b>Criminal Justice program</b> sequences .....	129-130
<b>Data Processing and Computer</b> courses .....	92, 95, 119, 159, 163
Dean's List .....	37
<b>Debate courses</b> .....	146
<b>Deferred Degree Program</b> .....	210
<b>Degrees: Summary of</b> undergraduate majors .....	10-11
(Details under respective school colleges, and departments)	
<b>Departments, Officers of</b> .....	7
<b>Deposits</b> .....	18
<b>Dormitories, general and</b> costs .....	17-20, 28
<b>Dormitories, map locations</b> .....	135
<b>Drafting (engineering) courses</b> ....	119
<b>Drafting (industrial arts)</b> courses .....	182-183
<b>Dramatics courses</b> .....	147-149
<b>Dramatics, student performances</b> ..	31
<b>Drawing courses</b> (Art Department) .....	50-52
<b>Drawing courses</b> (Industrial Arts) .....	182-183
<b>Dropping courses</b> .....	38
<b>Earth Science courses</b> .....	117-118
<b>Ecology courses</b> .....	117
<b>Economics, Managerial</b> (graduate course) .....	167
<b>Economics courses</b> (undergraduate) .....	164-165
<b>Economics Department</b> .....	153-154
<b>Economics majors</b> (CLA and SBE) .....	59, 153-154
<b>Education: Art Education courses</b> ..	53
<b>Education: Art Education</b> curriculum .....	48
<b>Education: Departmental</b> Organization .....	169
<b>Education: Elementary</b> courses .....	174-178
<b>Education: Elementary</b> curriculum .....	170-173
<b>Education: Kindergarten-Primary</b> courses .....	174-178
<b>Education: Kindergarten-Primary</b> curriculum .....	170-173
<b>Education: Industrial Arts</b> courses .....	181-185
<b>Education: Industrial Arts</b> Department .....	179-185
<b>Education: Music Education</b> courses .....	106
<b>Education: Music Education</b> curriculum .....	99-101
<b>EDUCATION, SCHOOL OF</b> ..	168-189
<b>Education: Secondary</b> courses .....	174-178
<b>Education: Secondary</b> Programs .....	173-174
<b>Education: Vocational Technical</b> courses .....	188-189
<b>Education: Vocational Technical</b> Program .....	186-189
<b>Educational Psychology</b> courses .....	133-135, 178
<b>Educational Television</b> .....	214-215
<b>Electrical Engineering courses</b> (graduate) .....	120-121
<b>Electrical Engineering courses</b> (undergraduate) .....	119-120
<b>Electronics Technology</b> courses .....	182
<b>Embryology course</b> .....	56
<b>Emeriti</b> .....	220
<b>Energy and Transportation</b> courses .....	181-182
<b>Engineering courses,</b> graduate .....	120-121

<b>Engineering courses,</b> undergraduate .....	119-120	<b>General information</b> (University) .....	9, 216-219
<b>English Courses</b>		<b>Geography-Anthropology</b> Department .....	76-80
Introductory courses .....	61	<b>Geography courses</b> .....	79-80
Writing courses .....	61	<b>Geology courses</b> .....	117
Criticism courses .....	61	<b>German courses</b> .....	74-75
Linguistics and related courses .....	62	<b>Government courses</b> (Political Science) .....	125-128
Non-required Major Credit courses .....	63	Grading system .....	36-37
English Literature courses .....	64	Graduate Studies .....	120-121, 201-205, 206-208
American Literature courses ....	66	Graduation requirements .....	37, 40
Modern Literature courses .....	67	<b>Graphic Communication</b> courses .....	182-184
Experimental courses .....	68	<b>Greek courses</b> .....	71-72
English Department .....	60-68	<b>Greek literature in translation</b> courses .....	70-71
Entrance Examinations .....	12-13, 15	Guidance services for students .....	28-29
<b>Environmental courses</b> ..	116, 117-118	Heads of Departments .....	7
Examination Policy .....	35	Health Services .....	27
<b>Existentialism course</b> .....	109	<b>Histology course</b> .....	57
Expenses .....	17	<b>History courses</b> .....	82-89
Faculty .....	220-233	History Department .....	81-89
<b>Family Planning course</b> .....	178	History of development of UMPG .....	216-219
Fees .....	17-18	Honor societies .....	26
<b>Finance courses</b> ....	161-162, 165, 167	Honors Program (Departmental) ..	46
Financial Aid and Scholarships .....	22-23	Humanities Area .....	45
Financial Information .....	17-23	<b>Ichthyology course</b> .....	58
<b>Financial Management courses</b> (graduate) .....	167	Industrial Arts Admission .....	14
Fine and Applied Arts Area .....	45	<b>Industrial Arts courses</b> .....	181-185
Flute instructor .....	97	Industrial Arts Department ..	179-185
<b>Foreign Language Education</b> course .....	74	<b>Industrial Arts Education</b> courses .....	185
<b>Foreign Language and Classics</b> courses .....	70-75	Industrial Education Program, Vocational .....	186-189
Foreign Language and Classics Department .....	69-75	Instructional Television .....	214-215
Foreign students .....	14, 29	<b>Instrumental Music courses</b> ..	104-105
Fraternities .....	26	Insurance for students .....	17, 27
<b>Free-hand drawing courses</b> .....	51	Inter-campus Bus Service .....	9
<b>French courses</b> .....	72-74	Interdisciplinary Studies .....	190-191
French Horn instructor .....	97	<b>International Affairs</b> courses .....	83, 126
<b>French literature in English</b> translation (courses) .....	70-71	Labor Education, Bureau of .....	215
<b>French teaching methods course</b> ..	74	Languages .....	69-75
<b>GENERAL AND INTERDISCIPLINARY</b> <b>STUDIES, SCHOOL OF</b> ....	190-191	Language Laboratory .....	69
General Education Requirements ..	45	<b>Latin courses</b> .....	72
<b>General Engineering</b> courses .....	119-121		

<b>Latin literature in English</b>	
translation .....	70-71
Law Review .....	207
LAW, SCHOOL OF .....	206-208
LIBERAL ARTS, COLLEGE OF ..	41-149
Libraries .....	32-33
<b>Limnology courses</b> .....	57
<b>Linguistics courses</b> .....	62-63
<b>Literature courses</b> .....	64-68
Loan Funds .....	23
<b>Machinery courses</b> .....	184-185
<b>Maine History course</b> .....	86
Major Undergraduate	
Programs .....	10-11
<b>Mammalian Physiology courses</b> ....	58
<b>Manufacturing and</b>	
<b>Construction courses</b> .....	184-185
<b>Marketing courses</b> .....	159, 162-163, 167
Master's Degree Programs	
.....	120-121, 155-158, 206-209
<b>Mathematics courses</b> .....	92-96
<b>Mathematics Education courses</b> ....	96
Mathematics Department .....	90-96
Matriculation Fee .....	17
<b>Mechanical Engineering</b>	
<b>courses</b> .....	119-120
<b>Metallurgy courses</b> .....	184-185
<b>Meteorology courses</b> .....	118
<b>Microbiology course</b> .....	57
<b>Mineralogy courses</b> .....	117
<b>Modern Language courses</b> .....	72-75
<b>Modern Society courses</b> .....	138-141
Motor Vehicle Regulations .....	29
<b>Music courses</b> .....	101-106
Music Department .....	97-106
<b>Music Education courses</b> .....	106
Musical organizations .....	25, 102
Music Major Admission .....	14
<b>Natural Resource Management</b>	
<b>courses</b> .....	118
Nurses' Continuing	
Education .....	195
<b>Nursing courses</b> .....	194
NURSING, SCHOOL OF .....	192-195
Oboe instructor .....	97
<b>Oceanography courses</b> .....	118
Orchestra .....	102
<b>Orchestration course</b> .....	103
Organ instructor .....	97
<b>Organic Chemistry courses</b> .....	116
Organizations for students ....	25-29
<b>Ornithology course</b> .....	57
<b>Painting courses</b> .....	51-52
<b>Parasitology courses</b> .....	57
Part-time work for students .....	23
Payment of bills .....	18
Personnel .....	220-233
<b>Philosophy courses</b> .....	108-109
Philosophy Department .....	107-109
<b>Photographic technique</b>	
<b>courses</b> .....	51-52, 178, 183
<b>PHYSICAL EDUCATION AND</b>	
<b>INTERCOLLEGIATE ATHLETICS,</b>	
<b>DIVISION OF</b> .....	196-200
<b>Physical Education courses</b> ..	197-200
Physical Education	
Requirements .....	169-170, 193
Physical Sciences and	
Engineering Department ..	110-124
<b>Physical Science courses</b>	
(not including Physics or	
Earth Science) .....	122
<b>Physics courses</b> .....	123
<b>Physiology courses</b> .....	55-56
<b>Piano courses</b> .....	102
Piano instructors .....	97
Placement Operation .....	27
Planetarium .....	30
<b>Play Production courses</b> .....	148-149
<b>Political Science courses</b> .....	125-128
Political Science	
Department .....	124-128
Practicing Secretaries	
Certificate Program .....	211
Probation .....	39
<b>Professional courses</b>	
<b>in Physical Education</b> .....	197-200
<b>Psychology courses (including</b>	
<b>Educational</b>	
<b>Psychology )</b> .....	133-135, 178
Psychology Department .....	132-135
Public Services .....	216
<b>Public Speaking courses</b> .....	146-147
Publications, student .....	26
Publications, University .....	6
Ranking system .....	36-37
Refunds .....	18-20
Registration .....	17
Regulations for students .....	29
Religious Organizations .....	25
Requirements for admission ..	10-16



Requirements for graduation .....	40	Student publications .....	26
Research Center .....	209	Student religious organizations ....	25
Residence and dining		<b>Student Teaching courses</b> .....	74, 177
halls .....	17-19, 28	Student Union .....	28
Residence in the State defined	20-21	Student volunteer services .....	27
Residence requirements for		Summer Sessions .....	210
degrees .....	40	<b>Supervised Teaching</b>	
<b>Retailing course</b> .....	159	<b>courses</b> .....	74, 177
<b>Rhetorical Theory course</b> .....	147	Suspension .....	39
<b>Romance Language courses</b> ....	72-75	Teachers Certificate .....	168
Room and Board .....	17-19	<b>Technological courses</b> .....	181-185
<b>Rural Sociology course</b> .....	140	Tests, advanced placement .....	15-16
Saxophone instructors .....	97	Tests, aptitude and	
Scholarships .....	22-23	achievement .....	12-13
Scholastic Aptitude and		<b>Theatre/Communications</b>	
Achievement Tests .....	12-13	<b>courses</b> .....	145-149
Scholastic Honor Societies .....	26	Theatre/Communications	
<b>SCHOOL OF BUSINESS AND</b>		Department .....	142-149
<b>ECONOMICS</b> .....	150-167	Transfer credits and students ..	14-15
<b>SCHOOL OF EDUCATION</b> ..	168-189	<b>Trigonometry courses</b> .....	92
<b>SCHOOL OF GENERAL AND</b>		Trombone instructor .....	97
<b>INTERDISCIPLINARY STUDIES</b>		Trumpet instructors .....	97
(SCOGIS) .....	190-191	Trustees, Board of .....	5
<b>SCHOOL OF LAW</b> .....	206-208	Tuition charges .....	17
<b>SCHOOL OF NURSING</b> .....	192-195	Two-year Associate of Science	
Science and Mathematics Area ....	45	Program in Business	
<b>Sculpture courses</b> .....	52-53	Administration .....	10-11, 150-151
<b>Semantics courses</b> .....	62	Upperclass membership .....	40
Social Sciences Area .....	45	Urban Adult Learning Center ....	213
<b>Social Welfare courses</b> .....	136-137	<b>Urban Sociology courses</b> .....	140
Social Welfare Department ..	136-137	Violin instructors .....	97
<b>Sociology courses</b> .....	138-141	<b>Vocal music courses</b> .....	103-105
Sociology Department .....	138-141	<b>Vocational Technical Education</b>	
Sororities .....	26	<b>courses</b> .....	188-189
Southworth Planetarium .....	30	Vocational Technical	
<b>Spanish courses</b> .....	75	Education program ..	186-189, 216
<b>Speech courses</b> .....	146-147	Voice instructors .....	97
Student activities .....	25-27	Withdrawal .....	39
Student Aid .....	22-23	Women's athletics and	
Student Center .....	28	recreation .....	34
Student employment .....	23	Work-Study Program .....	23
Student expenses .....	17-19	<b>Zoology courses</b> .....	56-57
Student Handbook .....	29		
Student Life and Services .....	25-29		
Student organizations .....	25-29		

