

1970

## University of Maine at Portland-Gorham Catalog 1970-1971

University of Maine at Portland - Gorham

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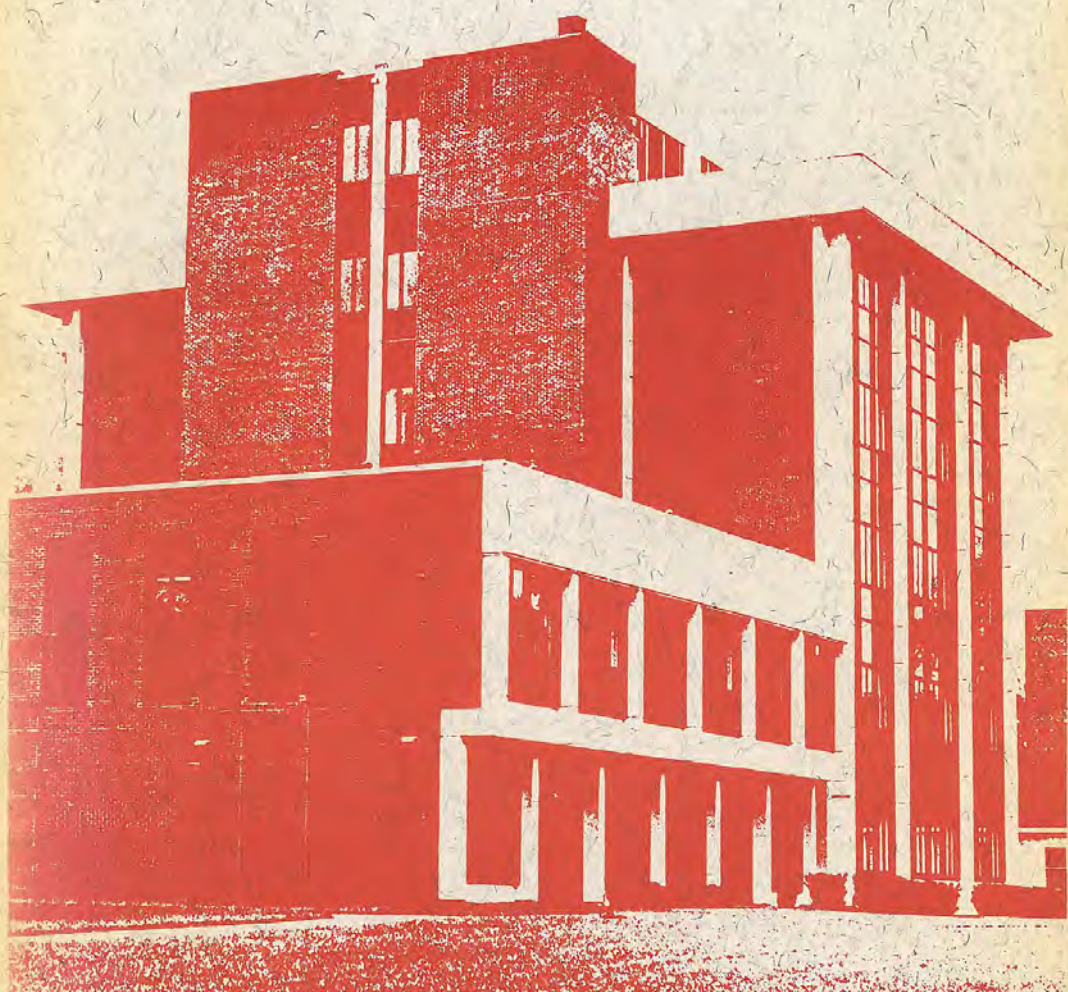
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# The University of Maine at Portland-Gorham



Catalog for 1970-1971



# Academic Calendar 1970-71

## The Gorham Campus

### 1970

#### First Semester

September 12	Orientation and Registration. Residence Halls Open at Noon.
September 14	Residence Halls for Upper Classmen Open at Noon
September 14-15	Registration Advisor - Advisee Conferences Faculty and Departmental Meetings
September 16	Classes Begin
November 6	End of First Quarter
November 9	Mid-Term Grades Due in Registrar's Office
November 26-27	Thanksgiving Recess (Classes end at Noon on November 25)
November 29	Residence Halls Open at Noon
November 30	Classes Resume
December 18	Start of Christmas Recess (Classes end at Noon on December 18)

### 1971

January 3	Residence Halls Open at Noon
January 4	Classes Resume
January 14	Reading Day
January 15-23	Examination Week
January 25-30	Between Semesters Recess

#### Second Semester

January 31	Residence Halls Open at Noon
February 1	Registration for Second Semester
February 2	Classes Begin
March 26	End of Third Quarter
March 29	Spring Recess
April 5	Residence Halls Open at Noon
April 6	Classes Resume
April 9	Third Quarter Grades Due in Registrar's Office
May 25	Reading Day
May 26 - June 5	Examination Week
June 6	Commencement

### SUMMER SESSION

1971 — Six-Week: June 21-July 30; Three-Week: August 2-20

*For the Portland Campus Calendar, see inside back cover.*



# The University of Maine at Portland-Gorham



Catalog for 1970-1971



# The University of Maine at Portland-Gorham

The University of Maine at Portland-Gorham was established by the Board of Trustees on July 1, 1970. This unit of the State University combines the University of Maine in Portland and Gorham State College. The initial phase of the merger united the two campuses administratively. By July 1971, a merged academic program will be in effect. UMPG will have a single faculty and student body and will serve as a center for graduate and undergraduate study in southern Maine. The University of Maine School of Law is also a part of UMPG.

The information in this catalog describes policies, procedures, and programs in effect at Portland and Gorham as of July 1, 1970. The reader should be aware that policies described for Gorham do not necessarily apply at Portland and vice versa. As new and joint policies and programs are adopted, this catalog will be supplemented with appropriate brochures and bulletins. Prospective students and others should, in the interim, consult local guidance counselors or contact the Admissions Offices at Portland and Gorham for pertinent information.

A statement of admissions information follows.

## Admissions

The approval of candidates seeking admission to the University of Maine at Portland-Gorham is on a selective basis. The University seeks candidates whose interest, motivation, academic record, personal accomplishments, and recommendations indicate a potential for success in University studies.

As a result of the University merger of the Portland and Gorham campuses there may be a delay this fall in sending admission materials to guidance offices and interested students. Should your request for admission materials be delayed, please be advised that information will be released as quickly as policies are established and as soon as brochures and application forms are printed.

### Academic Standards

The University of Maine at Portland-Gorham recommends the following college preparatory subjects for students seeking admission.

English	4 units
Mathematics	3 units
Sciences	3 units
History/Social Sciences	2 units
Foreign Languages	2 units

## Scholastic Aptitude Test and Achievements

1. All applicants are required to submit scores from the Scholastic Aptitude Test of the College Entrance Examination Board.

2. Applicants should work through the high school guidance office in registering for and counseling in the preparation for the Scholastic Aptitude Test and Achievement Tests.

3. Achievement test scores are required of all candidates, except those candidates applying to the Associate Degree Program in Business Administration. All candidates applying for four year programs must submit three achievement test scores. The English Composition Achievement test is required of all candidates. One or both of the other two tests should, if possible, be related to the candidate's area of major study.

## Reporting Scholastic Aptitude and Achievement Scores

Candidates are urged to submit Scholastic Aptitude Test and Achievement scores **no later than February of the senior year**. Scholastic Aptitude Test scores and Achievement scores in non-continuing subjects will be considered from the April, May, or July test of the junior year in high school.

Test scores from comparable examinations will be considered on an individual basis.

Candidates must have scores submitted to the University Admissions Office from the Educational Testing Service, Box 592, Princeton, New Jersey 08540 or Box 1025, Berkeley, California 94701. Scores may be reported to either the Portland or Gorham campus for the academic year 1970-1971.

## Dates for the Scholastic Aptitude Test and Achievement Tests

November 7, 1970 (SAT only)

December 5, 1970

January 9, 1971

March 6, 1971

April 17, 1971 (SAT only)

May 1, 1971 (Achievement Tests only)

July 10, 1971

## Application Procedures

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, Music, or Industrial Arts Department 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. The high school will send a transcript of work completed along with recommendations and teacher evaluation.



## PORTLAND-GORHAM

### 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. At the time of acceptance students will be notified where to send their deposit.

3. Admission 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 Committee reserves the right to refuse admission to any candidate who is not fully qualified to meet these University standards of personal fitness. The University reserves the right to cancel the acceptance of any application it deems necessary for academic or personal reasons.

5. **Interview:** With the exception of candidates applying to the Art, Music, and Industrial Arts programs, interviews are optional for all other students accepted for admission to the University. If students are desirous of an interview they should arrange for one with the Admissions Office.

### Additional Requirements for Admission to Areas of Specialization

#### Gorham Campus

**Art** All applicants for the Art Program will be asked to present a portfolio of their work before they will be considered for admission to the University. Students will be notified by the Admissions Office of the appropriate procedures to follow.

**Industrial Arts** Applicants for the Industrial Arts Education 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, which will be considered in lieu of the foreign language requirement. Students will be notified by the Admissions Office of the appropriate procedures to follow.

**Music** All candidates for the Music Education Program 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 Admissions Office of the appropriate procedures to follow.



### Admission to Advanced Standing

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 institute of learning beyond high school is classified as a transfer student even though the student may in the final analysis not transfer in credits. Students who have been accepted for admission as transfers from accredited institutions will receive advance standing credit when the work is "C" grade or better in courses corresponding to those offered by the University of Maine at Portland-Gorham.

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 college(s) attended. Student copies are not acceptable. Copies of catalogs including course descriptions must accompany all transcripts submitted for evaluation.

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



## Advanced Placement

### Gorham Campus

It shall be the policy of the University of Maine at Portland-Gorham (Gorham Campus) 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.

### Portland Campus

Students applying for Advanced Placement consideration for the academic year 1970-71 should contact the Dean of Academic Affairs for consideration by the Division Chairman on the Portland Campus.

## 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 Admissions Office at the University of Maine Portland-Gorham, 96 Falmouth Street, Portland, Maine 04103.

Married students applying for financial assistance must fill out forms provided by the University and return them directly to the Admissions Office at the University of Maine Portland-Gorham, 96 Falmouth Street, Portland, Maine 04103.





Bailey Hall from the Grove

## About The Gorham Campus

### The History

The Gorham Campus began officially in 1878 when the Maine Legislature approved the establishment of Western Maine Normal School on the site of the Gorham Female Seminary. The Normal School opened on January 29, 1879 with six faculty members and 85 students.

The name of the School was changed to Gorham State Teachers College in 1945 and to Gorham State College in 1965. The 103rd Maine Legislature in 1968 created a state university system and the College was merged with the University of Maine in Portland on July 1, 1970 to form a new unit of the system, The University of Maine at Portland-Gorham.

Gorham has been served by four presidents: Dr. William Corthell (1878-1905), Dr. Walter F. Russell (1905-1940), Dr. Francis L. Bailey (1940-1960), and Dr. Kenneth T. H. Brooks (1960-1970).

The Gorham Campus has developed over the years to its present size of over 1,500 students and 100 faculty members. The growth in size has been paralleled by a rapidly expanding curriculum. The Industrial Arts program was instituted in 1911. The Campus graduated its first class in the Kindergarten-Primary program in 1927. The first graduates in the full four-year curriculum were awarded degrees in 1938. The first Bachelor of Arts degrees were awarded in 1969.

A program to prepare music teachers and supervisors was instituted in 1956 and one for the preparation of art teachers and supervisors in 1958. In the fall of 1966 the curriculum was expanded to include preparation for teaching at the secondary level and in 1967 to include a liberal arts program.

Gorham has long conducted a summer session and evening division and in 1964 established a graduate school.



## **Accreditation and Membership**

Gorham is accredited by the New England Association of Colleges and Secondary Schools and the National Council for Accreditation of Teacher Education.

A membership is held in the Association of State Colleges and Universities, the American Council on Education, the American Association of Colleges for Teacher Education and the American Association of University Women.

## **The Objectives**

The major purpose of The Gorham Campus is to provide a continuing supply of graduates to serve public education in the areas of Kindergarten-Primary, Elementary, and Secondary Education, and the special fields of Art, Industrial Arts, and Music Education. An additional purpose is to provide a liberal arts program for a rapidly increasing number of students.

### **Teacher Education**

Gorham seeks to graduate teacher candidates of professional competence and personal character whose careers will reflect their dedication to effective programs of teacher education. Its graduates are expected to be:

- Academically competent teacher candidates who are products of a responsible process of selection and retention.
- Those who have experienced a program of academic excellence providing both breadth through general education and depth in their special areas.
- Those with a sound understanding of self, of human growth and development, of the teacher-learning process, and of the cultural foundations of education.
- Those who have acquired sufficient student-teaching experience to enter professional life with a minimum of delay or difficulty.
- Those whose professional orientation enables them to understand, as well as assume, their roles in a democratic society, its schools and communities.

### **Liberal Arts**

Gorham seeks to produce liberal arts graduates characterized by:

- Minds which have been enriched by exposure to the great ideas of western civilization, the "great books," the major achievements in science and technology, the theories of government, the creative works which make up our heritage. In addition, there should be a broad understanding of contemporary ideas, world problems, economic issues, forms of government, the challenges of today's science and technology. Intellectually, then, these students are oriented in relation to their cultural past and to the world in which they live.
- Moral character, understanding of self, awareness of ethical imperatives and values and an eagerness to help in the solution of problems of society.
- The ability to express ideas both orally and in writing.
- A developed aesthetic and critical sense, enabling the student to recognize and appreciate the best in the visual arts, music, and literature.
- A desire for more learning.



Upton-Hastings Women's Residences

### **The Location**

The Campus is located in the town of Gorham in the heart of southern Maine's most attractive cultural and recreational area. Portland, largest city in the State and only ten miles from the campus, offers many opportunities for the enrichment of student life.

The quiet serenity of a residential town has assured an ideal college setting. Through educational and civic activities both the students and faculty take a vital interest in the community and, in turn, many residents of Gorham warmly support Campus events.

Boston is only two hours in traveling time from the campus and provides a cosmopolitan experience and unparalleled research facilities for students and faculty alike. Easily accessible to Gorham is the Sebago Lake Region, a nationally famous resort area. The White Mountains are an hour's drive from the campus, and the Maine seacoast is easily reached in a half hour.

Thus, students and faculty at Gorham find the advantages of both city and country living within easy reach — winter and summer sports, cultural events, libraries, and a wide variety of social activities.

### **The Campus**

Surrounded by towering pines and hardwoods, the 125-acre campus stands on a hill overlooking the town of Gorham to the south and the Sebago-White Mountain region to the northwest.

The architecture of the 18-building campus is a blend of traditional and modern designs. Earlier buildings express Gorham's deep traditions while those in the contemporary mode reflect the rapid development.



## CORHAM

### Major campus buildings include:

- **Bailey Hall** — Named for the third President of Gorham, Dr. Francis L. Bailey.

**Science Wing (1958)** — Contains the classrooms, laboratories and offices of the Biological and Physical Sciences Department, greenhouse, and a science museum maintained by faculty and students and available to visitors upon request.

**Library Wing (1961)** — The building contains a 65,000 volume library in a highly adaptable complex of stacks and reading areas. Included are conference rooms, a study-smoker, and music-listening area. The east side of the building contains classrooms, conference rooms, faculty offices, and facilities for closed circuit television.

**Classroom Wing (1969)** — Contains offices and classrooms of the Education-Psychology and Mathematics Departments, a student lounge and a 200-seat multi-purpose lecture hall.

• **Warren G. Hill Gymnasium (1963)** — Bears the name of 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 of the Health and Physical Education Department. The gymnasium is used for intramural and inter-collegiate athletics and other Campus functions.

• **Woodward Hall (1955)** — Named for a former Vice-President of Gorham, Louis B. Woodward, the building provides dormitory accommodations for 96 resident men students.

• **Anderson Hall (1963)** — Named for Hayden L. V. Anderson, alumnus of Gorham and former Executive Director of Professional Services, Maine Department of Education. Contains lounges, study areas, and dormitory accommodations for 106 resident men students.

• **Russell Hall (1931)** — Bears the name of the second President of Gorham, Dr. Walter F. Russell. Contains a stage, 500-seat auditorium, workshop facilities, and offices of the Drama Department together with a gymnasium used for recreational and other campus activities.

• **Corthell Hall (1878)** — The Gorham Administration Building is named for the first President, Dr. William Corthell. Contains administrative offices, information desk, classrooms and offices of the Music Department. Also contains the Museum of Man which includes an extensive and significant collection of artifacts.

• **Robie-Andrews Halls (1897-1916)** — A dormitory complex containing accommodations for 200 resident women students. Robie Hall is named for Governor Frederick Robie, an early benefactor of Gorham. Andrews Hall, named for Professor Emerita of Music Miriam Andrews, also contains classrooms and laboratories of the audio-visual education program.

• **Academy Building** — Housed the original Gorham Academy and presented to the State of Maine in 1895. Renovated in 1966 to contain studios, offices and classrooms of the Art Department.

• **Upton-Hastings Halls (1960-1968)** — Named for long-time faculty members Miss Ethlyn Upton and Miss Mary Hastings. Contain lounges and dormitory accommodations for 300 resident women students. Basement of Upton Hall houses Bookstore.

• **Dining Center (1970)** — Contains a 900-seat dining hall, faculty and Presidential dining rooms, snack bar and student lounge, offices and conference rooms for student organizations and activities.

• **Tower Residences (1970)** — Twin high-rise student residences provide accommodations for 380 with lounge and study facilities.

• **McLellan House** — Considered to be the oldest brick house in the State of Maine. Purchased and renovated by Gorham in 1966 and operated as an honor resident dormitory for 16 women students.

• **President's Residence (1906)** — Provides living accommodations for the President and his family.

• **All Faith Chapel - Art Gallery** — The former Gorham Town Hall, acquired in 1961 for use as a student chapel; houses the Gorham Campus Art Gallery.

• **Industrial Education and Technology Center (1965)** — Contains offices, classrooms and laboratories for conducting programs in industrial arts and vocational-industrial teacher education. The Center has facilities for teaching concepts in the manufacturing, construction, power-transportation, electrical-electronics, graphic communications, and service industries.

# Annual Expenses at Gorham

1970-71

## GORHAM CAMPUS

Changing costs may require an adjustment of these charges.

### TUITION:

Maine Resident (a voting resident) .....	\$200.00
Non-Maine Resident .....	550.00

### ROOM:

Dormitory Resident .....	466.00
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### BOARD:

For all meals served in dormitory .....	484.00
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COLLEGE FEE: .....	65.00
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APPLICATION FEE: (must accompany application) .....	10.00
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MEDICAL INSURANCE: (optional and paid at registration) .....	23.00
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BOOKS: (estimated) .....	200.00
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### COURSE FEES:

Art Education Majors	
Freshmen, Sophomores, Juniors .....	20.00

Industrial Arts Education Majors	
Freshmen, Sophomores, Juniors .....	20.00

Music Education Majors (includes cost of private lessons) .....	240.00
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DIPLOMA FEE: .....	7.50
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ESTIMATED PERSONAL EXPENSES: .....	350.00
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## SCHEDULE OF PAYMENTS

Residence Hall students currently enrolled must make combined tuition and room deposit of \$50.00 on or before **April 15**. This deposit is to be applied to the first semester payment.

Commuting students currently enrolled must make a tuition deposit of \$25.00 on or before **April 15**. This deposit is applied to the first semester payment.

The balance due on tuition, board and room for the first half year, plus all other fees for the full year, must be paid by **August 15**. The payment for the second half year must be paid by **January 15**.

Checks should be made payable to the University of Maine and directed to Mrs. Electa M. Brown, College Bursar, Gorham Campus, Gorham, Maine.

Exceptions to the above schedule can be made only upon written request to the Bursar and upon approval by the Chief Finance Officer of the University of Maine at Portland-Gorham.



REFUND POLICY

No refunds of advance payments will be made unless these are requested prior to **June 1**. Refunds of other charges are made only when the student notifies the Bursar, in writing, of his official withdrawal from the Gorham Campus.

Non-refundable fees: Application or registration fee of \$10.00.

Non-refundable after registration: College Fees.

Insurance: Prorated and refund made to the student by the Insurance Agent.

TUITION, ROOM AND BOARD: (less debt service on room and board)

2 weeks or less after registration .....	80%
3rd week after registration .....	60%
4th week after registration .....	40%
5th week after registration .....	20%
over 5 weeks after registration .....	0%

The board and room charges less debt service will be refunded in accordance with the above refund schedule.

Tower Residences



# Student Life and Services at Gorham

## FINANCIAL ASSISTANCE

The Gorham Campus offers various forms of financial assistance to students who show a definite financial need in completing their education.

Meeting the financial obligations of a college education is the prime responsibility of the student and his parents. Where a need for aid is shown Gorham may assist with loans, scholarships, or part-time work opportunities.

It is quite important that parents and students sit down to work out a financial framework for the period of time the student will be in college.

### Who May Apply

Any full-time student matriculated for a degree or any candidate applying for admission to Gorham.

### How To Apply

All applicants must file a Parents' Confidential Statement through the College Scholarship Service of Princeton, New Jersey. (Applications are available at the Gorham Admissions Office or at the local high school guidance office.) Married students must complete a special form available at the Gorham Financial Aid Office.

### When To Apply

Students applying for admission to Gorham must submit the College Scholarship Service forms at the time they are applying to Gorham.

Recipients will be notified during the spring semester of their senior year in high school.

Students currently enrolled at Gorham who are required to submit College Scholarship Service forms must apply on or before February 1 for the coming academic year. Recipients will be notified at the time of billing, July 15.

### Conditions For Awards

#### 1. Financial Need

Students are granted financial assistance based on definite need as indicated by the Parents' Confidential Statement and an evaluation made by the Financial Aid Committee.

#### 2. Academic and Social Standing

Students on academic or disciplinary probation will not be considered for any form of financial assistance and funds may be withdrawn if a student is placed on academic or disciplinary probation.

### Sources of Financial Assistance

#### 1. State of Maine Scholarship Grants

Scholarships in the amounts of \$100 and \$200 are granted annually to approximately 200 students who are in good academic standing and show strong academic promise. Scholarship grants are applied to spring semester bills after the academic status of the student has been determined.

#### 2. National Defense Student Loans

Gorham participates in the National Defense Student Loan Program whereby students may borrow funds from the government with deferred payments until after completion of their degree work. Loans average approximately \$300 for an academic year and may be applied to a student's bill for the fall and spring semester.



### 3. Federal Scholarships

Gorham participates in the Educational Opportunity Grants Program. Grants are awarded to students of exceptional financial need.

### 4. Short Term Emergency Loans

There are three revolving short term emergency loan funds. Two of the funds are available only to women students and may be applied for through the Associate Dean of Students for Housing. A third is available to both men and women and may be applied for through the Financial Aid Office.

### 5. United Student Aid Fund, Inc.

Gorham is a participating member in the United Student Aid Fund, Inc. Program. Under the arrangements of this program students may borrow money directly from participating local banks with payments and interest deferred until the completion of their degree program. Students may borrow up to \$1,000 annually as an undergraduate and up to \$1,500 annually as a graduate student for a total not to exceed \$7,500. Applications for this loan are to be secured directly from the participating bank.

### 6. Work Opportunities

Funds are available whereby students may be employed to help defray college expenses. Jobs vary from library assistant, college dining service, secretarial, lab assistants, to janitorial services. Job opportunities are also available in the town of Gorham for students to work part-time.

### 7. Scholarships

Oftentimes students bring with them to Gorham scholarships which are granted by local organizations such as P.T.A., A.A.U.W., and others to aid in defraying their expenses. Scholarship grants vary from \$50 to \$200 annually. Students must assume the responsibility of notifying the Bursar of any scholarship awards which will aid in defraying college expenses.

Recipients of scholarships awarded are selected by the Financial Aid Committee in accordance with the qualifications as established by the donors of these scholarships. These awards are made on the basis of academic excellence and outstanding campus leadership.

#### Scholarships Awarded

• Class of 1950	\$100.00
Given in memory of Barbara Payne.	
• Class of 1963	\$ 50.00
Given in memory of Nancy Chandler,	
• Alumni Association	\$100.00
Presented in memory of Walter E. Russell	
• Alumni, Southern Branch	\$100.00
• Alumni, Portland Branch	\$100.00
• Charles F. Martin	\$50.00 or \$100.00
• Gertrude L. Stone	\$100.00
• Frances Howarth	(2) \$100.00
• Frank F. Brown	\$100.00
• Fannie E. Gray	
• Hervey Hanscom	(2) \$100.00

# CORHAM

- **Bailey-Jenkins** **\$100.00**  
 Given by Richard Jenkins in memory of his parents and honoring Dr. Bailey.
- **Richard Goodridge** (2) \$ 50.00
- **George P. Davenport Loan Fund**  
 To be used for making small loans to deserving students who are residents of the State of Maine, who are temporarily in need of money to pay expenses of their education. Small interest charge.
- **Gertrude Prinn Scholarship** **\$100.00**
- **Woodward-Alumni Scholarship** **\$ 50.00**
- **Delta Chi Fraternity Scholarship** **\$ 50.00**
- **Kappa Delta Epsilon Sorority Scholarship** **\$ 75.00**
- **American Association of University Professors Scholarship** **\$ 25.00**

Student Dining Center and Lounge







### STUDENT HEALTH SERVICES

To provide adequate student health services, the Campus maintains an infirmary with four full-time registered nurses who are available for consultation, first aid, and temporary emergency care. A physician is available from 1-2 p.m. each afternoon, Monday-Saturday, and immunization clinics are conducted periodically.

Health and accident insurance, which is available for all students at a nominal fee, covers a portion of hospitalization, surgery, medication, and care by a physician.

Formal instruction in areas of health and physical education is an integral part of the health program.

### STUDENT HOUSING

Gorham provides living accommodations for approximately 1,100 men and women students. Woodward Hall houses 96 men and Anderson Hall 106. Robie-Andrews Hall houses 200 women and Upton-Hastings Hall 300. The McLellan House has accommodations for 16 women and the Towers house 380 students.

Before a room is assigned to a student in the Campus residence halls, he will be required to sign a residence hall room contract for the academic year or part thereof depending on the date of admission to the residence hall.

Gorham regulations require that all students live in residence halls unless they live at home or in the home of close adult relatives or are 20 years of age by August 31 of the fall semester that they enter or return to the Campus. If they are 20 at or before this date or are a veteran of two or more years of military service, they may choose to live off campus. The above applies to the extent that there is space available. All exemptions must be cleared through the Housing Office.

Gorham maintains the right to keep the residence halls filled in order to reduce bond indebtedness; therefore, when it is necessary, Gorham may require students to move on campus to keep the dormitories filled.

Those who cannot be so accommodated will be assisted by the Housing Office in finding rooms in the town of Gorham and the surrounding area.

All students housed on the campus must also contract for meals. Students living off campus may either contract for all their meals at the cafeteria or make their own arrangements off campus. The standard rate will apply to those who choose to purchase their meals at the cafeteria.

Since this is a public institution, the policy of Gorham is that there cannot be private domain in reference to dormitory rooms. Therefore, should an emergency exist whereby Campus officials would need to enter any dormitory room, they may do so.





## STUDENT STANDARDS

It is assumed that all students entering Gorham are willing to subscribe to the following: *That a student is expected to show, both within and outside Gorham, respect for order, morality, and the rights of others, and such sense of personal honor as is demanded of good citizens and prospective members of the teaching profession. Gorham reserves the right to dismiss a student for actions that disrupt the normal educational process of the institution or for any behavior that brings discredit to the institution and the teaching profession.*

Gorham requires certain standards of academic performance and of general good character for admission; if these are not maintained, Gorham suspends or dismisses the student. Every effort is made to provide adequate academic and personal counseling for all students, with the aim of enabling them to complete successfully their courses of study.

Gambling, use or possession of alcoholic beverages, use, possession or transportation of non-prescribed amphetamines or barbiturates, use or possession of hallucinogens, narcotics or marijuana, firearms or other dangerous weapons, and fireworks are prohibited from the campus.

### Motor Vehicles

The following students are authorized to park motor vehicles on campus in accordance with the conditions outlined in the motor vehicle guide.

1. Commuters attending day, evening, or graduate classes.
2. Junior and senior resident students. A motor vehicle must be registered at the Traffic Office on the first day that it is driven on campus.

### Responsibility for Personal Property

Gorham does not under any circumstances assume responsibility for loss of or damage to personal property through fire, theft, or other causes. Persons desiring protection against possible loss or damage should purchase appropriate insurance unless it is found that parents already have desired coverage by means of a family policy.

### Withdrawal Procedure

It is essential to keep a record of withdrawals in case some question arises at a later date with respect to refund or grade assigned when the student withdraws. Procedures concerning withdrawal are:

- a. A student must fill out an official withdrawal form in the Dean of Students Office.
- b. A record shall be made and maintained in the Dean of Students Office of all within-term withdrawers. Parents shall be notified if the student who withdraws is under 20 years of age.
- c. A copy of the withdrawal slip shall be filed in the student's permanent file.

### Identification Cards

Plastic identification cards are issued to all students. These cards include the student's name, address, and student identification number. Identification cards are necessary for admission to athletic contests, concerts, lectures, voting in student elections, and social events at Gorham. The cards are also necessary for use of library facilities. These cards are invalid without the student's signature and they are nontransferable.



McLellan House — Women's Honor Residence

## STUDENT LIFE

The student at Gorham is considered to be an active member of the campus community. As such, he or she is encouraged to take an active role and interest in the campus community through social and professional programs, extra-curricular activities, membership on committees, and participation in campus government through the Student Senate and Assembly.

Gorham sponsors a number of educational, social and cultural programs including a Concert-Lecture Series, Film Series, Visitation Day, Parents Day, Beauty Day, Winter Carnival, Miss Gorham State Pageant, music productions and plays, convocations, seminars, and special programs.

Students participate with faculty and administrators in the establishment of policy and programs through membership on committees such as Academic and Admission Standards, Curriculum, Library, Activities Calendar and Facilities, Athletics, Orientation, Special Programs, Student Aids, Student-Faculty on Publications, Commencement, Traffic and Parking, Student Affairs Advisory, and Student Exchange.

## STUDENT ACTIVITIES AND ORGANIZATIONS

A student will find numerous extracurricular opportunities on campus vital to his social, cultural, and moral development as a person, citizen, and prospective member of society. A variety of clubs and activities on campus offer educational experience, opportunities for leadership development, and relaxation during leisure hours. Most students soon are able to find a club or organization suited to their particular interests. The campus activities and organizations provide a wide variety of activities — social, athletic, musical, artistic, intellectual, student government, and religious.





## **STUDENT GOVERNMENT AND COMMITTEES**

### **Student Senate**

The Student Senate is the governing body of student organizations on the Gorham campus. The Senate seeks "to promote the betterment of Gorham by effecting close student, administration, and faculty relationships." It provides students representation for formulating and executing policies pertaining to student life and activities.

The Student Senate coordinates and regulates all student activities on campus. The Student Senate has the responsibility of allocating funds which it receives from the activity fee to student-supported organizations, for developing college-wide extracurricular programs, for organizing the freshman class, for conducting the student elections, for approving new campus organizations and clubs, and for regulating all campus-student activities and campus-wide student social calendaring.

Each class elects one student senator annually for each fifty students enrolled in the class. The Senate officers are selected by campus election. The Student Senate represents the official voice of the student body.

### **Residence Student Government-House Committee**

The Resident Student Government represents the coordinating agency for the resident men's and women's House Committee. The objective of this governing body is the concern for the general welfare and student life of men and women residents, the coordinator of the responsibilities of their governments by promoting, whenever possible, the social, educational, and cultural interest of male and female residence hall students.

### Music Organizations

**MUSIC EDUCATOR'S NATIONAL CONFERENCE** — The Music Educator's National Conference, a professional organization open to all students on campus, aims to present practical programs dealing with music education. In the spring it presents a concert of young musicians from public school music organizations.

**A CAPPELLA CHOIR** — The A Cappella Choir is a select vocal ensemble specializing in chamber music of all periods, from Renaissance to Contemporary. The A Cappella Choir performs at convocations, concerts and other campus functions.

**BRASS ENSEMBLE** — Brass Ensemble is a select group of advanced players, chosen from the band, who specialize in the performance of brass chamber music. The group appears publicly several times a year at campus concerts and community functions.

**CONCERT BAND** — The Concert Band is composed of students from all departments of Gorham who desire to develop their musical talents and skills by participating in a wind band. The band presents a number of public concerts each year.

**GORHAM CHAMBER ORCHESTRA** — The Gorham Chamber Orchestra provides an opportunity for both day and evening college students to develop their musical talents and skills by participating in a Chamber orchestra. The group meets one evening each week for a two-hour rehearsal.

**GORHAM CHORALE** — The Men's and Women's Glee Clubs are made up of over one hundred carefully screened members. The Chorale makes several public appearances during the college year.

**MEN'S GLEE CLUB** — The Men's Glee Club performs works, both traditional and modern, which are especially suited to male voices. Occasionally it joins the Women's Glee Club in campus concerts, television shows, and guest appearances.

**WOMEN'S GLEE CLUB** — Membership is open to all interested women. The group performs representative works for women's voices and combines with the Men's Glee Club to present choral works of greater scope. Several public concerts are given during the year.

### The Arts

**ART CLUB** — The Art Club provides an outlet and an opportunity for its members for creating art objects in various media.

**TREEHOUSE PLAYERS** — The organization sponsors dramatic productions allowing members experience in acting, lighting, set construction, and make-up.

**MODERN DANCE CLUB** — Open to a limited number of students who seek training in the technique of modern dance, the Modern Dance Club provides an opportunity for work in choreography and experience in program planning.







## Fraternal, Professional and Honorary Organizations

### FRATERNITIES:

The Interfraternity Council was created by fraternity men at Gorham to govern and advise all fraternities on the campus. Its intent is to insure the continuity of purpose and high ideals expressed by all fraternities at Gorham through self-government.

Delta Chi fraternity was founded in 1890 at Cornell University. It has over 60 chapters at colleges and universities throughout the country. The Gorham chapter has built a strong organization while adhering to the philosophy that a close association of college men promotes friendship, develops character, advances justice, and assists in the acquisition of a sound education.

Gamma Rho is the only local fraternity on the Gorham campus. They sponsor various student and community service projects throughout the year along with a professional program related to a teaching career.

Tau Kappa Epsilon was founded in 1899 at Illinois Wesleyan University. TKE attempts to develop the character and ability of each of its members through its annual activities.

Phi Mu Delta, founded in 1918 at the University of New Hampshire, is the oldest fraternal organization at Gorham. This organization prides itself in the close ties it maintains with its alumni members.

### SORORITIES:

The Inter-Sororities Council is made up of delegates from each campus sorority. This group serves as a means of communication among the sororities relative to procedures for membership and to the maintenance of standards of social polish and academic achievement.

Sigma Chi Omega is a non-national sorority whose interests center around the growth and development of its members through community responsibility, work, and friendship.

Kappa Delta Epsilon is a national professional sorority. Its goals are to promote scholastic achievement, educational interests, and projects of service for the campus and community. Its membership is made up of persons actively engaged in the preparation for teaching.

Phi Mu is a national sorority. The major purpose of the organization is to promote friendship, scholarship, leadership, services and esprit de corps among women students on campus.

**STUDENT EDUCATION ASSOCIATION** — The Student Education Association is an affiliated group concerned with the changing problems and responsibilities of American education. As a member of the Maine Teachers Association and the National Education Association, the S.E.A. supports their codes of ethics, their policies and programs, offers informal coffees for student teachers, and sponsors speakers on foreign education.

**INDUSTRIAL ARTS PROFESSIONAL ORGANIZATION** — Open to all industrial arts students and faculty, the IAPO brings community professional programs to Gorham, encourages the exchange of ideas and the discussion of problems, and promotes further professional development through either membership or participation in state, regional, and national industrial arts associations.



## GORHAM

**INDUSTRIAL ARTS DEVELOPMENT COUNCIL** — Serves the Department in an advisory capacity. Its membership consists of two elected representatives from each class and two faculty members. Its chief purposes are to discuss and to seek ways and means of fostering greater efficiency within the program and of improving faculty-student relationships.

**EPISILON PI TAU** — International honorary fraternity in industrial arts and industrial vocational education. Recognizes junior and senior students who have achieved scholastic honors and have made significant contributions in their major. Its purposes are to esteem the function of skill; to promote social and professional efficiency; and to foster and reward research.

**PRESIDENTIAL SCHOLARS** — The purpose of the Presidential Scholars is to identify the most outstanding students of the campus community and place them in the forefront of activities. The students selected receive a monetary award, serve as personal representatives of the President, and assist him in social and academic functions of his office.

**TOP-OF-THE-TREE** — Honorary drama organization, membership limited to those students who have contributed to the dramatic production in the fields of acting, stage crew, scene design, management and directing.

## Student Publications

**HILLCREST** — The Hillcrest, the annual student yearbook, is edited by a staff distinguished by editorial and administrative skill, originality, and initiative. It handles a variety of assignments: editing, layout, advertising, business management, art, and photography.

**THE OBSERVER** — The Gorham weekly newspaper is staffed and published by students interested in all aspects of journalism. The Observer serves as an outlet for journalistic talents through a variety of news resources: editing, reporting, feature articles, art work, and photography.

**LITERARY MAGAZINE** — The Gorham Literary Club edits and publishes the student literary magazine. Contributors to the magazine include both students and faculty. The magazine is staffed entirely by students with special interest and skills in editing, layout, advertising, art, photography, and business management.



## Religious Groups

**STUDENT CHRISTIAN ASSOCIATION** — The Student Christian Association, an inter-denominational organization on campus, provides spiritual guidance and fellowship. The organization provides a variety of programs including films, speakers, discussions, debates, and projects.

**NEWMAN APOSTULATE** — The Newman Apostulate, a national collegiate religious organization, enables the student to share more intelligently and spiritually in Christian worship and to increase his knowledge of the role of Catholicism in today's world. The Apostulate participates in religious, intellectual, and social activities.

**INTER-VARSITY CHRISTIAN FELLOWSHIP** — The Inter-Varsity Christian Fellowship serves to stimulate active participation in the spiritual and religious development of the student body.

**RELIGIOUS AFFAIRS CLUB** — The Religious Affairs Club is an ecumenical group whose purpose is to put forth a positive, active Christian expression as well as to create a dialogue involving the total campus community on the important issues of our times.

## Special Interest Groups

**CHESS CLUB** — The Chess Club was organized by chess enthusiasts to provide ready competition for the confined players in the community, to help teach novices, and to insure campus-wide improvement in a fascinating and relaxing pastime.

**COMMUTERS CLUB** — The Commuters Club provides a forum for the benefit and interest of all non-resident students. The Club maintains active participation in various social and educational activities.

**INTERCOLLEGIATE DEBATING TEAM** — The debating team is open to students interested in researching, discussing and debating the National Intercollegiate Question. The teams participate in various debates in the eastern portion of the United States.

**OUTING CLUB** — The Outing Club provides students with an opportunity for healthful enjoyment all through the college year. Some of its activities include overnight camping trips, skiing excursions, and hiking.

**PSYCHOLOGY CLUB** — The purpose of this club is to increase student awareness in order to improve understanding of human behavior and to lighten the load of those in need whenever possible.

**PUBLIC AFFAIRS CLUB** — The Public Affairs Club sponsors activities for students interested in contemporary social and political issues. The Club sponsors assembly programs, visiting international scholars, teacher workshops, and student participation in conferences at other colleges.

**SKI CLUB** — The Gorham Ski Club provides a healthy outlet for all students interested in winter sports. Along with various weekend ski trips, the Ski Club also sponsors social functions on the campus.

**VARSITY "G" CLUB** — A service organization made up of men earning letters in varsity sports competition, the Varsity "G" Club assumes responsibility for sponsoring special athletic events and assists in the campus intramural program.

**VETERANS CLUB** — The Veterans Club is designed to provide greater educational and social development for those students with military experience. The Club maintains a very active interest in service projects for both the community and the campus.

**YOUNG DEMOCRATS** — The principal objective of the Young Democrats is to promote political interest on the campus. The club is particularly active during the election years. A number of club members have been involved with campaigning for candidates for office from the Gorham area.

**YOUNG REPUBLICANS** — The Young Republican Club provides the Gorham student with an opportunity to become active in local, state, New England and national politics. Some of the activities of the club during an election year are political rallies and speakers, campaigning by club members, and club fund raising projects.



Soccer action in the fall . . . precedes another popular sport

### Intercollegiate Athletics

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

As one of the members of the New England State College Athletic Conference, the Huskies compete successfully in varsity cross-country, soccer, basketball, baseball, tennis, and golf. A freshman basketball schedule completes the present program.

As a member of the National Association of Intercollegiate Athletics (District 32), Gorham has participated in district play-offs in soccer, basketball, cross-country, golf, and tennis. Gorham is also a member of the National Collegiate Athletic Association and the Eastern College Athletic Conference.

The Warren Hill Gymnasium is one of the best designed and adequately equipped sports facilities in the area.





### **Men's Intramural Athletics**

The Physical Education Department conducts an extensive intramural program for men students. Leagues or tournaments are conducted in soccer, tennis, golf, bowling, flag football, cross-country, table tennis, basketball, wrestling, badminton, volleyball, softball, track and field, and bicycle racing.

Team play, sportsmanship and individual participation are encouraged throughout the programs. Trophies are awarded to individual members of the championship team in each sport. Awards are presented to members of the all-year championship club.

### **Women's Athletic Association**

Stressing student leadership, faculty coaching, and campus-wide participation in athletics, the Women's Athletic Association sponsors sports on an intramural level including archery, badminton, basketball, gymnastics, softball, tennis, and volleyball.

Intercollegiate athletics offered are badminton, basketball, field hockey, lacrosse, tennis, and volleyball.

### Placement of Graduates

The Campus maintains a placement service to assist students in securing employment upon successful completion of undergraduate and graduate degree work. The Director of Placement keeps a complete up-to-date set of credentials on all students requesting the use of the Placement Center. These credentials will be forwarded to school officials, government agencies, business and industry upon the request of the graduate.

The aim of this service is three fold – to help each graduate fill the position for which he is best qualified in training, experience and quality, to assist school officials in finding qualified teachers who will meet the needs of their system and to counsel any graduating student in planning and making career choices.

The Office informs students concerning the locations of positions available, salary and arranges personal interviews between candidates and recruiters for positions. The Director plans visitation for seniors before contracts are signed to the schools in which they have professional interest; and guides prospective candidates in preparing credentials, participation in placement interviews and evaluating the desirability of the various teaching situation or other employment. The Director will also make arrangements for interviewers and school officials to come on campus for interviews during the year.

The Placement Office maintains an analysis of Gorham graduates by employment, salary, and geographical distribution. This is published each fall and is available in the Placement Office. The Placement Office also maintains off-campus part-time job listings. Students seeking information about placement should contact the Director of Placement.

### The Gorham Alumni Association

The Gorham Alumni Association of the University of Maine at Portland-Gorham aims to promote the educational, professional, social and economic interests of the University with special emphasis on these interests as they affect Gorham.

The Association, which meets on the fourth Tuesday of each month, is governed by an elected Board of Directors, consisting of five Officers, six Directors, one Faculty Representative, and two Student Representatives. The Board is advised by nine Councilors, the Presidents of all Branches, the Agents of Reunion Classes, the Immediate Past President of the Association, the President of Portland-Gorham, and an Executive Director. The Board and its advisors make up the Council which meets three times a year.

In the past five years, voluntary support of this organization by its members and friends has tripled. The theme for 1970-1971 is "A Giant Step for Gorham" indicating the Association's awareness of its new role as a voting member of the governing body of the campus and as a representative of Gorham in cooperative efforts with other alumni associations of the University.





## The Academic Policies at Gorham

### The Advisory Program

An orientation program is provided for new students at the beginning of the fall term. It includes placement tests, social events, discussion groups, and tours. The program gives the new student an opportunity to meet faculty members, faculty advisers and upper class student advisers, to learn more about college services, and to complete registration.

Every student is assigned an adviser whose primary function is to assist the student in the selection of courses. Normally the adviser is from the department in which the student will major. In cases where this is impossible the student may be reassigned by the end of the sophomore year.

The adviser is available for scholastic or personal consultation at his own or at the student's request. In addition the student is encouraged to meet with individual faculty members and Deans.

### Attendance Policy

*The attendance policy shall be left to the discretion of the individual faculty member. Each semester, it shall be the responsibility of the faculty member to inform the student in each class of his attendance requirements for that class. A copy of his attendance requirements shall be on file in the office of the Dean of Academic Affairs.*

When a faculty member wishes the Office of the Dean of Academic Affairs to place a student on a no-cut basis or to drop the student from the course with a failing grade due to excessive absences, he must notify the Office of the Dean of Academic Affairs in writing.

## The Grading System

Grades at 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 – excellent
- B – above average
- C – satisfactory (average)
- D – unsatisfactory pass – acceptable for credit except in the following Secondary Education and Liberal Arts majors and minors: English, History, Social Sciences.
- F – failure
- P – pass – given only for certain courses open to the pass-fail option. Credits received are not included in grade-point average computation.
- 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 within the first eight weeks of the semester following that in which received. An I which is not removed in this period becomes an F.
- WP – approved withdrawal from a course, after the end of the formal drop period, 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.
- WF – approved withdrawal from a course, after the end of the formal drop period, 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.

## "D" Grade Policy

Students must achieve at least six (6) credits of "B" or better grades in the major or minor fields offered by the departments of Social Sciences, History, and English in the Secondary Education and Liberal Arts programs. No grades of "D" will count toward fulfillment of the major and/or minor requirements in the above programs. No required course may be repeated more than once.

## Add-Drop

Once a student has completed his registration, a period of one week is permitted for Add-Drop. This procedure permits a student to make necessary course changes in his planned curriculum. 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 drop the course.

Any student who finds that his name is not on the instructor's official list should check immediately with the Registrar's office to make necessary corrections in his registration records.



### **Withdrawal from Course**

A student who withdraws from a course after the regular Add-Drop period does so only with the permission of the Office of Academic Affairs, the instructor and the advisor. Up to mid-semester a student seeking withdrawal will be judged WP or WF by the instructor and the grade will be recorded by the Registrar. A student withdrawing from a course after mid-semester will receive an F unless there are unusual circumstances. The form is obtainable in the Dean's Office or the Registrar's Office.

### **Change of Major**

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

### **Pass-Fail Option**

Students are permitted to enroll for a maximum of six hours of pass-fail credits in any one semester to a maximum of 18 hours, exclusive of student teaching and the related seminar, of the total credit hours required for graduation. Student teaching and the related seminar are considered as a block 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. Only one course in the minor may be taken pass-fail.

### **Course Credits**

Since a minimum of 120 credit hours is required for graduation, thirty should be earned each year. To progress satisfactorily through college a student is expected to carry fifteen credit hours each semester. Permission must be obtained from the advisor and the Office of the Dean of Academic Affairs if a student wishes to carry less than twelve or more than eighteen credit hours.

A course rated *F* does not carry credit and must, unless it is a free elective, be repeated and passed; if it is a free elective course, another elective may be approved in its place by the faculty advisor.

An *Inc.* mark must be satisfactorily removed by the middle of the following semester in which the grade was given. It is the student's responsibility to remove the *Inc.* rank by consulting his instructor; otherwise the *Inc.* will be changed to an *F* by the Registrar.

A scholastic warning is prepared by the instructor for students whose academic performance is below average at mid-semester. The Dean of Academic Affairs will notify each student, his parents, and his adviser of the instructor's warning. The report is designed to help the student analyze his deficiencies by conferring with his instructor and his advisor.



**Writing Proficiency (This policy applies to Freshmen entering Gorham in the Fall of 1970)**

1. All students will be graded for writing proficiency by all faculty in all courses where sufficient writing has been assigned to warrant such a judgment. Along with, and in addition to, his regular final course grade each student will receive a "Proficient" or "Non-proficient" for his writing.
2. Two non-proficient ratings in any given semester will result in a student's having to take a writing examination administered by the English Department. If he fails the examination, he must take non-credit remedial composition: either as independent study or in a special section with other students.
3. Standards of writing proficiency should be adjusted according to a student's class level; thus a student might be required to take the examination and remedial course more than once. It is also possible that a student might not show writing inadequacies until his junior or senior year.
4. The remedial program is intended for the relatively small number of students who are otherwise good or excellent but have trouble writing well.
5. Failure to demonstrate writing proficiency will prevent graduation.



**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 quality points
- B — 3 quality points
- C — 2 quality points
- D — 1 quality point
- F — 0 quality point

To compute the grade-point average for a semester, divide the total quality points earned by the total credits carried. To compute the cumulative grade-point average, divide the total quality points earned by the total credits carried in all semesters. If a course has been repeated the initial grade remains on the record but does not count toward grade-point average.

To qualify for the degrees of Bachelor of Science and Bachelor of Arts, a student must have earned a minimum cumulative quality-point average of 2.00. Semester cumulative minima are as follows:

	Cumulative Minimum for good standing	Cumulative Minimum for probationary standing
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Freshmen, end of first semester	1.35	1.15
Freshmen, end of second semester	1.60	1.35
Sophomores, end of first semester	1.80	1.60
Sophomores, end of second semester	2.00	1.80
Juniors and Seniors, end of each semester	2.00	1.80

A student who fails to obtain the minimum for probationary standing for his class is dismissed from Gorham. Students whose cumulative grade-point averages fall below the minimum required for continuation in good standing and above the dismissal point are placed on academic probation the following semester. Failure to improve academically and inability to meet the minimum for good standing result in automatic dismissal from Gorham.

Any student whose semester average falls below 1.0 is automatically dismissed for at least one semester.

**Grade Reports**

Considerable care is taken to ensure that course registrations and grades entered on a student's permanent record are accurate. Any student who, upon receipt of a semester final grade report, suspects an error has been made should take the matter up immediately with the Registrar's Office and the instructor. Records are assumed to be correct if a student does not otherwise report to the Registrar's Office within six months of the completion of a course. At that time portions of the record are to be committed to microfilm, which cannot be amended.



## The Gorham Graduate School

The graduate programs at Gorham have as their purposes the following:

1. An advanced intellectual challenge to the student;
2. An opportunity for extended depth in scholarship;
3. Assistance in furthering professional competency;
4. An awareness of pertinent research and contemporary development.

Those wishing to pursue graduate courses in the summer session who have not previously enrolled should obtain detailed information before registering.

Descriptive material and application forms are available upon request from the Director of Graduate Studies at Gorham.

Students who are not candidates for a Master's degree at Gorham must receive prior approval from the Graduate Office before registering for graduate courses.



## CORHAM

The programs lead to the degree of Master of Science in Education to be attained by one of the following methods:

### **The Classroom Teacher (K-12)**

\*12-24 credit hours in Liberal Arts

6-18 credit hours in Professional Education

3 credit hours in Research Seminar

Comprehensive Examinations

\*A minimum of 9 hours must be completed in one of the following disciplines: English, Geography, History, Mathematics, Psychology, Natural Science, Physical Science or Sociology.

### **Elementary and Junior High Reading**

The program will require successful completion of thirty-three semester hours of graduate-level work. Candidates may write a Master's thesis for three hours of credit or substitute for it a Research Seminar in Reading for three hours of credit. A written comprehensive examination over the entire program will be required of all candidates and candidates must receive two affirmative votes from a three-member faculty committee to satisfy this requirement. If unsuccessful, additional course work may be prescribed.

12-18 credit hours in Professional Education

\* Ed 512 Sequential Development of the Reading Domain (3)

\* Ed 537 Reading Remediation (3)

\* Ed 539 Clinical Practices in Reading (Clinic) (6)

Ed 511 Reading Synthesis in the Middle Grades (3)

Ed 538 Analysis of Reading Difficulties (Grades 7-12) (3)

Ed 536 Innovations in Reading (3)

Ed 540 Learning Disabilities (3)

Ed 543 Teaching Language Arts in the Elementary School (3)

Ed 571 Introduction to Counseling (3)

12-18 credit hours in Liberal Arts

\* Eng 536 Children's Literature (3)

\* Eng 531 Linguistics (3)

\* Psy 582 Psychological Measurement and Evaluation (3)

\* Psy 601 Individual Psychological Testing (3)

Psy 560 Psychology of Learning (3)

Psy 575 Psychology of the Exceptional Child (3)

Psy 569 Psychology of Motivation (3)

SW 500 Family Dynamics (3)

Eng 530 History of the English Language (3)

Eng 546 Contemporary American Short Story (3)

3 credit hours in research

Ed 900 Thesis (3) or

Ed 550 Research Seminar in Reading (3)

\* Required courses

**Industrial Arts**

- 6-15 credit hours in Industrial Arts
- 9-18 credit hours in Liberal Arts
- 6 credit hours in Professional Education
- 3 credit hours in Research Seminar
- Comprehensive Examinations

**Elementary Guidance**

- 9-18 credit hours in Professional Education as follows:
  - \*a. Introduction to School Guidance Services
  - \*b. Introduction to Counseling
  - c. Occupational and Educational Theory and Information
  - d. Community and Family Resources
  - e. Internship (K-8)
  - \*f. Practicum (K-8)
- 12-18 credit hours in Psychology as follows:
  - \*a. Group Process and Procedure
  - \*b. Psychological Measurement and Evaluation
  - \*c. Individual Psychological Testing
  - \*d. Child Psychology
  - e. Adolescent Psychology
  - f. Psychology of the Exceptional Child
- 3 credit hours in Research Seminar
- Comprehensive Examination in Guidance
- \*Required for Elementary Counselor's Certificate

**Secondary Guidance**

- 9-18 credit hours in Professional Education as follows:
  - \*a. Introduction to School Guidance Services
  - \*b. Introduction to Counseling
  - \*c. Occupational and Educational Theory and Information
  - d. Community and Family Resources
  - e. Internship (7-12)
  - \*f. Practicum (7-12)
- 12-18 credit hours in Psychology as follows:
  - \*a. Group Process and Procedure
  - \*b. Psychological Measurement and Evaluation
  - c. Individual Psychological Testing
  - d. Child Psychology
  - \*e. Adolescent Psychology
  - f. Psychology of the Exceptional Child
- 3 credit hours in Research Seminar
- Comprehensive Examination in Guidance
- \*Required for Secondary Counselor's Certificate



### **Elementary Administration**

12-18 credit hours in Liberal Arts – Psychology of Learning is required

12-18 credit hours in Professional Education as follows:

- a. Elementary Administration
  - b. Supervision in the Public Schools
  - c. 6-12 credits to be elected from the following courses:  
Evaluating Pupil Achievement, Introduction to School Guidance Services, Public Relations, School Finance, School Law and School Personnel Administration.
- 3 credit hours in Research Seminar in Administration  
Comprehensive Examination in Administration

### **Secondary Administration**

12-18 credit hours in Liberal Arts – Psychology of Learning is required

12-18 credit hours in Professional Education as follows:

- a. Secondary Administration
  - b. Supervision in the Public Schools
  - c. 6-12 credits to be elected from the following courses:  
Evaluating Pupil Achievement, Introduction to School Guidance Services, Public Relations, School Finance, School Law and School Personnel Administration.
- 3 credit hours in Research Seminar in Administration  
Comprehensive Examination in Administration

### **Thesis Programs**

Candidates may elect to write a thesis in any of the programs. In this case the Research Seminar and Comprehensive Examinations are not required. Candidates enroll in Ed 899T, Independent Study in Thesis Preparation for three credits and for Ed 900 the Thesis itself, so that the regular course work is reduced to twenty-seven hours. Candidates must successfully defend the thesis before a thesis committee.

The programs in Administration and Guidance are designed to satisfy state certification requirements for the principal and counselor certificates for both elementary and secondary levels. It is assumed that candidates in the Guidance Program hold a teaching certificate and will have completed a minimum of two years of successful teaching experience by the time their graduate program is completed. Candidates in the Administration program must have completed three years.

### **Non-Thesis Programs**

All non-thesis programs require a total of thirty-three credit hours with at least a "B" average.

## ADMISSION TO THE GRADUATE SCHOOL

Admission is selective in nature. The applicant will be judged on the basis of previous academic record and potentiality for graduate work.

### Admission to Graduate Study

Application for admission to the Graduate Division should be made to the Dean of Graduate Studies. Candidates must submit transcripts of all undergraduate and graduate study, scores on the Miller Analogies Test, or the Graduate Record Examination, and three references. Upon admission to graduate study candidates will be assigned a major advisor.

### Residence

All students enrolled part-time are required to attend at least one summer session at Gorham, as a full-time student carrying six semester hours of credit.

### Course Load Limitations

No student may carry more than six semester credit hours of part-time study in a regular academic semester or in any six-week summer session. Full-time students may carry up to fifteen semester credit hours.

### Time Limitations

Students must fulfill all requirements for the graduate degree within eight years of the date of completion of their first graduate course, including transfer work.

### Teaching Experience

Candidates with less than a 2.5 cumulative undergraduate record must complete one year of successful teaching before being considered for admission. They may be required to complete six additional hours of undergraduate work with "B" grades or better.

### Transfer Credits

Graduate students may transfer a maximum of twelve semester credit hours into the Gorham graduate program.

### Minimum Grade Requirements

For successful completion of the degree program, a student shall be required to obtain a "B" average for all courses. No grade below "C" in any course is acceptable.

### Comprehensive Examinations

Comprehensive Examinations required of the non-thesis candidates shall be prescribed and administered by the Graduate Study Council.





### The Evening College

Gorham conducts an Evening Division Program which serves the needs of students for higher education courses primarily at the freshman and sophomore levels as well as adult extension courses of interest to the general community.

A person who has a high school education or its equivalent and who believes that he can pursue college work with profit is admitted to all evening courses for which there are no prerequisites.

The Evening College is designed to meet the needs of the following:

Recent high school graduates unable to attend day college because of limited enrollment quotas or for financial reasons.

Adults unable to attend college during day hours who wish to earn college credits.

Teachers in-service wishing to earn credits toward an undergraduate degree.

Adults interested in self-improvement but not concerned with a degree.

Enrollment in the Evening College is not in itself the equivalent of matriculation for a degree. Neither is enrollment an assurance of admission to day-college courses. Qualified Evening College students do, however, have priority in admission; if space can be found, they will be accommodated.

Course content, instructional levels, and grading standards in the Evening College are intended to be identical with those in the degree-program. Accordingly, credits earned in the Evening College may be submitted, upon the student's matriculation, toward a degree at Gorham or at another institution of his choice. Courses regularly offered, each of which carries three semester-hours or credit are listed herewith:

Eng	100e - 101e	Ed	100e	Eng	250e
Ms	100e - 101e	FA	100e	Psy	200e
Fr	100e - 101e	FA	101e	Psy	300e
Sci	100e - 101e	Ms	104e	Sci	200e
SS	100e - 101e	Eng	200e	SS	202e
SS	200e - 201e	Eng	210e	SS	203e

See catalog for detailed course descriptions.

### Undergraduate Summer Session

Gorham holds an annual Summer Session. It presents a balanced program of liberal arts and professional courses designed to meet the needs of undergraduates who are accelerating their program or removing deficiencies, high school graduates interested in academic enrichment and teachers seeking certification or renewal of same.

# The Academic Programs at Gorham

## TEACHER EDUCATION

All curricula and programs require four years for completion. Upon graduation, the student receives the Bachelor of Science degree and the proper teaching certificate. Gorham prepares teachers in the following course programs:

### Kindergarten-Primary

The Kindergarten-Primary curriculum qualifies students to teach in the kindergarten through grade eight, with emphasis on kindergarten through grade three.

### Elementary

The Elementary curriculum qualifies graduates to teach grades kindergarten through eight, with emphasis on grades four through six.

### Secondary (7-12)

The Secondary curriculum qualifies graduates to teach grades seven through twelve in the fields of Biological Science, Sciences Area, English, History, Social Sciences Area, Theatre and Speech, and Mathematics Area.

### Art

Graduates of this program qualify to teach or supervise art in all grades of the public schools.

### 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.

### Music

The Music curriculum qualifies graduates to teach or supervise vocal and instrumental music in all grades.





# Core Requirements for Teacher Education

## General Education

Every student is required to complete a minimum of 44 credit hours in general education, as follows:

	Credit Hours	Credit Hours
College Health		2
English		9
English Composition	(6)	
Literature	(3)	
History and Appreciation of Art		3
History and Appreciation of Music		3
Mathematics (assigned)		3
Physical Education	(Two years)	2
Psychology		3
Sciences		7
Biological Science	(4)	
Physical Science	(3)	
Social Sciences		9
Western Civilization I	(3)	
Choice of 2 courses from the following:		
Western Civilization II	(3)	
U. S. History (either half)	(3)	
Principles of Geography	(3)	
American Government	(3)	
Sociology	(3)	
Principles of Economics	(3)	
Speech		3
Choice of one course from the following:		
Basic Speech	(3)	
Argumentation and Debate	(3)	
Persuasion	(3)	
Oral Interpretation	(3)	
Fundamentals of Acting	(3)	
Dramatic Production	(3)	

### Professional Education

Every student except those in Secondary Education and Music Education is required to complete a minimum of 26 credit hours in professional education as follows:

	Credit Hours
The American School	2
Human Growth and Development	3
Philosophy of Education	3
*Curriculum, Methods and Materials	6
Student Teaching	12
	<hr/> 26

\*The appropriate curriculum course and methods course(s) in major must be completed before student teaching.

In both general and professional education there are additional or special requirements which will be indicated in each curriculum as it is set forth.

## Curriculum for Kindergarten-Primary Education Majors

### General Education

All kindergarten-primary education majors are required to complete the basic forty-four credit hours in general education. The additional general education requirements are:

			Credit Hours
Ms	101	Social Sciences Electives	6
Sci	101	Elements of Mathematics II	3
FA	200	Physical Science II	3
FA	201	Art Fundamentals	2
Eng	350	Fundamentals of Music	2
		Children's Literature	2
			<hr/> 18

### Professional Education

All kindergarten-primary education majors complete the basic twenty-six hours plus seven additional credit hours. The complete professional program is as follows:

			Credit Hours
Ed	100	The American School	2
Psy	300	Human Growth and Development	3
Ed	300	Primary Curriculum, Methods and Materials	3
Ed	303	Primary Reading	3
Ed	305	Primary Arithmetic	3
Ed	308	Science and Health for the Primary School Teacher	2
Ed	401	Philosophy of Education	3
Ed	402	Student Teaching	12
Ed	411	Measurement and Evaluation	2
			<hr/> 33

All students in the kindergarten-primary curriculum are considered as education majors. In addition to the general and professional requirements they are required to complete two academic minors of eighteen credit hours each, or a concentration of thirty credit hours. General education requirements may be counted toward the concentration or the two minors.





# Curriculum for Elementary Education Majors

## General Education

All elementary education majors are required to complete the basic forty-four credit hours in general education. Their additional requirements, the same as those for the kindergarten-primary curriculum, are eighteen credit hours.

## Professional Education

All elementary education majors complete the basic twenty-six credit hours plus an additional seven credit hours. The full professional program follows:

			Credit Hours
Ed	100	The American School	2
Psy	300	Human Growth and Development	3
Ed	302	Elementary Curriculum, Methods and Materials	3
Ed	304	Elementary Reading	3
Ed	306	Elementary Arithmetic	3
Ed	310	Science and Health for the Elementary Teacher	2
Ed	401	Philosophy of Education	3
Ed	402	Student Teaching	12
Ed	411	Measurement and Evaluation	2
			<hr/>
			33

The basic curriculum course (Ed 302) provides the overall framework within which the specific courses offer instruction as to plans and unit work. Ed 302, 304, 306, and 310 are carefully planned to prevent undesirable duplication.

All students in the elementary curriculum are considered as education majors. In addition to the general and professional requirements they are required to complete two academic minors of eighteen credit hours each, or a concentration of thirty credit hours. General education requirements may be counted toward the concentration or the two minors.



## Curriculum for Secondary Education

### General Education

Secondary Education majors must complete the basic general education requirements with exceptions which vary according to the specific programs which the students enter.

### Professional Education

The following 21 hours are required:

			Credit Hours
Psy	300	Human Growth and Development	3
Ed	309	Secondary Curriculum (7-12)	3
		Methods Course in Major	3
Ed	402	Student Teaching	12
			<hr/>
			21

All students in the Secondary Education Curriculum are required to complete a major of 36 credit hours (30 credit hours in English) and a minor of 18 credit hours (24 credit hours in Mathematics) with the exception of area majors of 50 credits in Social Sciences, Sciences, Biology and Mathematics.

Methods courses do not count toward specific hour requirements of majors and minors.

It is possible to major in Biological Science, Sciences Area, English, Mathematics, Mathematics Area, History, Social Sciences Area, and Theatre and Speech. Minors may be obtained in Biological Science, English, History, or Mathematics, Physics, and Theatre and Speech.



# Program for English Majors and Minors

## English Major, Secondary and Liberal Arts

Beginning in the fall of 1970, freshmen, sophomores and juniors majoring in English are required to take at least 30 credit hours in English courses numbered 300 or above. (Courses numbered below 300 will not count for major credit.) Departmental requirements will henceforth apply to both Liberal Arts and Secondary English majors.

## SPECIFIC REQUIREMENTS

Students majoring in English are required to take two semesters of Freshman Composition (Eng 100-101) in addition to the following courses:

- Eng 352 Shakespeare
- Eng 440 History of the English Language
- Eng 490 Senior Seminar

## DISTRIBUTION OF ELECTIVES

In order to balance their programs English majors must take at least six credit hours from each of the following categories:

### Medieval and Renaissance:

- Eng 381 Medieval Prose and Poetry
- Eng 382 Chaucer
- Eng 383 16th Cent. Prose and Poetry
- Eng 352 Shakespeare
- Eng 453 English Drama 1580-1642
- Eng 490 Senior Seminar

### 19th and 20th Centuries:

- Eng 366 Eng Lit. of the Romantic Period
- Eng 367 Eng Lit. of the Victorian Period
- Eng 455 19th Cent. English Novel
- Eng 457 Modern Drama
- Eng 458 20th Cent. English Poetry
- Eng 459 Modern Novel
- Eng 460 Modern Short Story
- Eng 490 Senior Seminar

### 17th and 18th Centuries:

- Eng 384 17th Cent. Prose and Poetry
- Eng 388 Milton
- Eng 389 Restoration Drama
- Eng 385 Rise of the English Novel
- Eng 386 Restoration and Early 18th Cent. Prose and Poetry
- Eng 387 Later 18th Cent. Prose and Poetry
- Eng 490 Senior Seminar

### American Literature:

- Eng 370 Literature of the American Colonial and Revolutionary Period
- Eng 371 New England Renaissance
- Eng 373 Amer. Fiction I: Romanticism to Real.
- Eng 374 Amer. Fiction II: 20th Century
- Eng 375 Major Figures in Amer. Literature
- Eng 376 20th Cent. American Poetry
- Eng 377 American Drama
- Eng 490 Senior Seminar

Strongly recommended for English majors but not required: Eng 380 (Introduction to Linguistics) and SS 400 (History of England). In the junior year all majors in Secondary English (7-12) must take Eng Ed 354 (Teaching English in the Secondary School); this methods course does not count for major credit.



### **ALL-COLLEGE REQUIREMENTS**

Regardless of their majors, all students must take 6 credit hours in Freshman Composition (Eng 100-101) and one additional semester (3 credit hours) from the following list of English courses:

Any course numbered 300 or above (with the exception of Eng 380, 440 and 470)

Eng 200 Great Writers

Eng 205 Greek Epic and Drama

Eng 206 19th Century European Novel

### **ENGLISH MINOR: KINDERGARTEN-PRIMARY, ELEMENTARY AND SECONDARY**

Eng 100-101 and 12 additional hours of English courses, either required or elective, for a total of 18 credit hours.

### **Department Requirements in Writing Proficiency**

1. All English majors must pass a writing proficiency examination to graduate as English majors. The examination, which will be offered at least once per semester, should be taken by the second semester of the sophomore year or at such time as any given student should declare his English major.

2. English majors who fail this examination must take a non-credit remedial writing course, either as independent study or in a special section with other students.

3. Passing the English major writing proficiency examination will be a prerequisite for Eng 351 (Advanced Writing), Eng 420 (Creative Writing), Eng 421 (Poetry Workshop), Eng 422 (Fiction Workshop).





## Program for Theatre and Speech Majors and Minors

### Theatre and Speech, Secondary

#### FRESHMAN YEAR

Eng 250  
FA 104

Basic Speech  
Theatre Appreciation and History

Credit  
Hours

3  
3

#### SOPHOMORE YEAR

Eng 364  
Eng 222

Dramatic Production  
Argumentation and Debate

3  
3

#### JUNIOR AND SENIOR YEARS

Eng 270

Vocal Mechanism and Phonetics

3

**\*Electives:** Choose from the list below at least 21 credit hours.

Eng 230  
Eng 340  
Eng 457  
Eng 240  
Eng 265  
Eng 452  
Eng 344  
Eng 330  
Eng 345

Fundamentals of Acting  
History of the Theatre  
Modern Drama  
Persuasion  
Oral Interpretation  
Fundamentals of Directing  
Rhetorical Theory  
Playwriting  
Speech Correction for the Classroom Teacher

Credit  
Hours

3  
3  
3  
3  
3  
3  
3  
3  
3

\*All Theatre and Speech majors who are intending to teach at the secondary level are recommended to enroll in courses that will expose them to both disciplines.

### Theatre and Speech Minor

Students must complete 18 credit hours of Theatre and Speech courses selected from the list of electives.

# Program for History Majors and Minors

## History Major, Secondary

### Required:

			Credit Hours
SS	100-101	Western Civilization I and II	6
SS	200-201	U.S. History	6
SS	498	Historiography	3
		Courses outside the American History area	6
			<hr/> 21

Electives: Choose from the list below at least 15 credit hours.

			15
			<hr/> 36
			Credit Hours
SS	301	Maine History	2
SS	354	Diplomatic History of U.S. I	3
SS	355	Diplomatic History of U.S. II	3
SS	356	History of Russia	3
SS	357	History of the West	3
SS	358	The Bible	3
SS	363	20th Century U.S.	3
SS	364	Civil War and Reconstruction	3
SS	365	Soc. & Cult. Hist. U.S. to 1865	3
SS	366	Soc. & Cult. Hist. U.S. since 1865	3
SS	367	Colonial History of U.S.	3
SS	368	Seminar in American Character	3
SS	369	The Negro in American History	3
SS	373	Introduction to African History to Partition	3
SS	374	Introduction to African History since Partition	3
SS	375	Contemporary Africa	3
SS	376	The United States and Africa	3
SS	385	Europe, 1500-1715	3
SS	387	French Revolution and Napoleon	3
SS	388	Europe and World in 19th Century	3
SS	389	German History since 1870	3
SS	392	Twentieth Century Europe	3
SS	394	History of the Far East to 1700	3
SS	395	History of the Far East since 1700	3
SS	400	History of England	3
SS	410	U. S. and the Far East	3
SS	415	Viewpoints in American History	3
SS	425	Canadian-American Relations	3
SS	460	History of Canada	3
SS	475	United States Foreign Policy	3
SS	499	Independent Study in the Social Sciences	1-6

Also required but not included in the total credits for the major:

SS Ed	361	Teaching Social Studies in the Secondary School	3
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## Secondary History Minor:

A minimum of 18 credit hours to include SS 100-101 and SS 200-201 with the remaining hours to be chosen from the elective courses listed above.

## History Minor (Kindergarten-Primary, Elementary)

A minimum of 18 credit hours of required and elective history courses.





## Program for Social Sciences Majors and Minors

### Social Sciences Area Major

#### Required:

			Credit Hours
SS	100-101	Western Civilization I and II	6
SS	200-201	U.S. History	6
SS	202	Principles of Geography	3
SS	203	Sociology	3
SS	204	American Government	3
SS	300	Economics	3
SS	302	Current Economic Problems	3
SS	350	World Geography	3
			30

Also required but not included in the total credits for the major:

SS Ed	361	Teaching Social Studies in the Secondary School	3
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#### Electives:

A minimum of 20 credit hours from all other departmental offerings.

#### Social Sciences Minor: (Kindergarten-Primary, Elementary)

A minimum of 18 credit hours of required and elective social sciences courses.

#### Geography Minor: (Kindergarten-Primary, Elementary)

A total of 18 credit hours of geography and geology courses.

#### Change of Major

Any student requesting a change into a History Major or a Social Sciences Area Major will be expected to furnish evidence that he can do successful work in his prospective new major.

"Evidence of ability to do successful work" shall be interpreted as at least one grade of B and no grade below C in any course counting toward his proposed major.



## Program for Mathematics Majors and Minors

Secondary and Liberal Arts students may count toward the major or minor only mathematics courses with numbers ending in 50 or above.

### Mathematics Major, Secondary

A minimum of 36 credit hours which must include at least one course from each of the following areas:

Ms 260, Ms 261, Ms 360, Ms 361;  
 Ms 270, Ms 271, Ms 370, Ms 371;  
 Ms 350, Ms 351, Ms 450, Ms 451;  
 Ms 390, Ms 391, Ms 490, Ms 491.  
 Also required: Ms Ed 312.

An area major in mathematics is a minimum of 50 credit hours which must include the requirements listed above.

### Mathematics Major, Liberal Arts

A minimum of 30 credit hours of courses with numbers ending in 50 or above.

### Mathematics Minor, Secondary

A minimum of 18 credit hours of courses with numbers ending in 50 or above.

### Mathematics Concentration, Kindergarten-Primary or Elementary

A minimum of 30 credit hours of any mathematics courses.

### Mathematics Minor, Kindergarten-Primary or Elementary

A minimum of 18 credit hours of any mathematics courses which may include:

Ms	100-101	Elements of Mathematics I and II
Ms	140	Pre-Calculus Mathematics
Ms	220	Introduction to Statistics
Ms	230	History of Elementary Mathematics
Ms	310	Basic Concepts of Algebra
Ms	311	Informal Geometry

The department of mathematics requires a minimum of a C average in order for students to graduate as majors or to be placed in student teaching.



# Program for Biological Science Majors and Minors

## Biological Science Major, Secondary and Liberal Arts — 50-Hour Program

### FRESHMAN OR SOPHOMORE YEAR Credit Hours

Sci 110	General Botany	4
Sci 111	General Zoology	4
Sci 120-121	General Chemistry I and II	8

### SOPHOMORE OR JUNIOR YEAR

Sci 161-162	Physics I and II	8
Sci 380	Organic Chemistry	4

### ELECTIVES IN BIOLOGY

Sophomore, Junior or Senior Year

It is recommended to take two courses from each of the following three groups:

Sci 250	Vascular Botany	4
Sci 251	Non-vascular Botany	4
Sci 252	Invertebrate Zoology	4
Sci 253	Vertebrate Zoology	4
Sci 369	Microbiology	4
Sci 420	Embryology	4
Sci 258	Ecology	3
Sci 259	Conservation	3
Sci 366	History of Science	3
Sci 370	Ornithology	3
Sci 372	Ichthyology	4
Sci 381	Introduction to Biochemistry	4
Sci 385	Cell Biology	3
Sci 400	Biological Techniques	4
Sci 410	Plant Physiology	3
Sci 450	Genetics	3

### REQUIRED FOR BIOLOGICAL SCIENCE MAJOR, SECONDARY

Junior or Senior Year

Sci Ed 361	Teaching Biology in Secondary School	3
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### ADDITIONAL ELECTIVES FOR BIOLOGICAL SCIENCE MINOR AND SCIENCES AREA MAJOR

Sci 200	Biological Science	4
Sci 355	Natural Science	3
Sci 367	Anatomy and Physiology	3

### Biological Science Minor, Secondary

A minimum of 18 credit hours in basic and advanced Biology.



## Program for Sciences Area Majors and Minors

The Sciences Area Major 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 grades seven through nine.

Sciences Area Major, Secondary

		Credit Hours
<b>FRESHMAN YEAR</b>		
Sci 120-121	Chemistry I and II	8
or		
Sci 161-162	Physics I and II	
<b>SOPHOMORE YEAR</b>		
Sci 200	Biological Science (If qualified by examination, the student may substitute an advanced course in Botany or Zoology)	4

**FRESHMAN, SOPHOMORE, JUNIOR, AND SENIOR YEARS**

Select at least 38 hours from the following:

		Credit Hours
<b>Group A — 28 Credit Hours Required</b>		Credit Hours
Sci 120	General Chemistry I	4
Sci 121	General Chemistry II	4
Sci 156	Physical Geology	3
Sci 157	Historical Geology	3
Sci 161	General Physics I	4
Sci 162	General Physics II	4
Sci 363	Astronomy	3
Sci 368	Meteorology	3



# GORHAM

## **Group B – At least 8 credit hours (choose one course from each group)**

Sci	250	Vascular Botany	4
Sci	251	Non-vascular Botany	4
Sci	252	Invertebrate Zoology	4
Sci	253	Vertebrate Zoology	4

## **Group C – At least 3 credit hours**

Sci	259	Conservation of Natural Resources	3
Sci	366	History of Science	3
Sci Ed	360	Teaching Sciences in the Secondary School (also required but not counting toward the 50-hour major)	3

## **Electives:**

Sci	150-151	Earth Science	6
Sci	258	Ecology	3
Sci	360	Structural Geology	3
Sci	361	Oceanography	3
Sci	367	Anatomy and Physiology	4
Sci	369	Microbiology	4
Sci	370	Ornithology	3
Sci	372	Ichthyology	4
Sci	373	Mineralogy	3
Sci	380	Organic Chemistry	4
Sci	381	Introduction to Biochemistry	3
Sci	382	Advanced Physics Laboratory	3
Sci	385	Cell Biology	3
Sci	400	Biological Techniques	4
Sci	420	Embryology	3
Sci	450	Genetics	3
Sci	455	Modern Physics	3

## **Physics Minor:**

Sci	161-162	General Physics I and II	8
Sci	455	Modern Physics	4
		Electives	6

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## **Electives:**

Sci	363	Astronomy	3
Sci	368	Meteorology	3
Sci	361	Oceanography	3

## **Sciences Minor – (Kindergarten-Primary, Elementary)**

### **Required:**

Sci	100-101	*Physical Science or its equivalents	6
Sci	200	Biological Science	4

### **Electives:**

At least 8 credit hours from the following:

Sci	120	General Chemistry I	4
Sci	150-151	Earth Science	6
Sci	156	Physical Geology	3
Sci	157	Historical Geology	3
Sci	161-162	General Physics I and II	8
Sci	250	Vascular Botany	4
Sci	251	Non-vascular Botany	4
Sci	252	Invertebrate Zoology	4
Sci	253	Vertebrate Zoology	4
Sci	258	Ecology	3
Sci	259	Conservation of Natural Resources	3
Sci	355	Natural Science	3
Sci	361	Oceanography	3
Sci	363	Astronomy	3
Sci	366	History of Science	3
Sci	368	Meteorology	3

\*Students who successfully pass qualifying examinations in chemistry and physics may take elective courses in the physical sciences.



# Curriculum for Art Education Majors

## General Education

Art Education students are required to take the same basic general education courses outlined for all Gorham students.

## Professional Education

Art Education majors are required to complete the same minimum number of professional education as all other students, except those in Secondary Education. Included are Art Ed 221 and Art Ed 321.

## Area Specialization

Art			Credit Hours
Art	141	Design I	3
Art	142	Design II	3
Art	241	Design III	3
Art	151	Drawing I	3
Art	152	Drawing II	3
Art	231	Drawing III	3
Art	261	Painting I	3
Art	262	Painting II	3
Art	277	Photography I	3
Art	281	Printmaking I	3
Art	291	Sculpture I	3
Select 9 credits from following crafts electives:			
Art	231	Handcrafts	3
Art	331	Ceramics I	3
Art	334	Ceramics II	3
Art	332	Metalwork I	3
Art	333	Weaving I	3
Art	336	Weaving II	3
			<hr/> 42
Art History			
Art	111	History of Art I	3
Art	112	History of Art II	3
Art	411	Aesthetics & Art Criticism	3
Art		Elective	3
			<hr/> 12

The Art Education Curriculum requires a total of 121 credit hours.



# Art Education Curriculum

## FRESHMAN YEAR

			Class Hours	Credit Hours				Class Hours	Credit Hours
Eng 100	English Comp. I	3	3	Eng 101	Eng. Comp. II	3	3		
Sci 100a	Phys. Sc. Concepts	4	3	Sci 200	Biological Sci.	6	4		
PE 100	Physical Education	2	$\frac{1}{2}$	PE 101	Phys. Education	2	$\frac{1}{2}$		
Art 141	Design I	6	3	Art 142	Design II	6	3		
Art 151	Drawing I	6	3	Art 152	Drawing II	6	3		
Art 111	Hist. of Art I	3	3	Art 112	Hist. of Art II	3	3		
			<hr/>				<hr/>		
			24				26		
			15%				16%		

**SOPHOMORE YEAR**

Ms	104	Math Concepts	3	3	Eng		Literature	3	3
Psy	200	Gen. Psychology	3	3	SS	101	Western Civil. II	3	3
PE	200	Physical Education	2	½	PE	201	Phys. Education	2	½
Art	241	Design III	6	3	Art Ed	231	Practicum	3	3
Art	251	Drawing III	6	3	Art	291	Sculpture I	6	3
Art	231	Handcrafts	6	3	Art	281	Printmaking I	6	3
or									
Art	331	Ceramics	6	3				23	15½
			32	15½					

## JUNIOR YEAR

Eng		Speech requirement	3	3	Ed	100	Amer. School	2	2
SS		Elective	3	3	Psy	300	Human Growth	3	3
Art		Art Hist. Elective	3	3	PE	102	College Health	2	2
Art	261	Painting I	6	3	Art Ed	321		Principles &	
Art	336	Weaving II	6	3			Procedures	3	3
			21	15	Art	262		Painting &	
							Procedures	3	3
					<b>Choose one</b>				
					Art	334		Ceramics II	6	3
					Art	333		Weaving I	6	3
					Art	332		Metalwork I	6	3
								19	16

## SENIOR YEAR

Ed	402	Student Teaching	12	Ed	401	Phil. of Ed.	3	3
				FA	101	Music Appreciation	3	3
				SS	—	Elective	3	3
				Art	271	Photo I	3	3
				Art	411	Aesthetics	3	3
							15	15



# Curriculum for Music Education Majors

## General Education

Music Education students are required to complete the same basic general education requirements as all other students.

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 solo recital in junior and senior year.
2. Fulfillment of minimum requirements in both voice and piano, regardless of major instrument.
3. Participation in at least two musical organizations without credit.

## Professional Education

In addition to the basic 26 credit hours in professional education required of all students, except those in Secondary Education, Music majors must complete the following:

		Credit Hours
Mus Ed 200	Brass Class	2
Mus Ed 201	Woodwind Class	2
Mus Ed 300-301	Music Education Methods	6
Mus Ed 302-303	String Class	4
Mus Ed 400	Administration & Supervision	3
		<hr/> 17

## Area Specialization

The Music content program consists of the following:

Mus	102, 103, 202, 203	Theory	12
Mus	104, 105, 206, 207, 306, 307	Applied Music	24
Mus	106, 107, 208, 209, 308, 309, 403	Instrumental and Vocal Ensemble	3½
Mus	108, 109, 210, 211, 310, 311, 404	Recital Class	3½
Mus	100, 101, 200, 201	History of Music	12
Mus	302, 303	Instrumental and Vocal Conducting	4
Mus	400	Orchestration	3
			<hr/> 62

The Music Education Curriculum requires a total of 140 hours.



# Music Education Curriculum

## FRESHMAN YEAR

			Credit Hours
Eng	100-101	English Composition I and II	6
Ms	104	Mathematical Concepts I	3
Mus	100-101	History of Music I and II	6
Mus	102-103	Theory I and II	6
		Applied Music	8
Mus	106-107	Instrumental and Vocal Ensemble	1
Mus	108-109	Recital Class	1
PE	100-101	Physical Education	1
PE	102	College Health	2
			<hr/>
			34

## SOPHOMORE YEAR

FA	100	Art Appreciation and History	3
Mus	200-201	History of Music III and IV	6
Mus	202-203	Theory III and IV	6
Mus Ed	200	Woodwind Class	2
Mus Ed	201	Brass Class	2
Mus	206-207	Applied Music	8
Mus	208-209	Instrumental and Vocal Ensemble	1
Mus	210-211	Recital Class	1
PE	200-201	Physical Education	1
Psy	200	General Psychology	3
Psy	300	Human Growth and Development	3
			<hr/>
			36

## JUNIOR YEAR

Mus Ed	300-301	Music Education Methods	6
Mus Ed	302-303	String Class	4
Mus	302	Instrumental Conducting	2
Mus	303	Vocal Conducting	2
Mus	306-307	Applied Music	8
Mus	308-309	Instrumental and Vocal Ensemble	1
Mus	310-311	Recital Class	1
Sci	100a	Physical Science Concepts	3
Sci	200	Biological Science	4
SS	—	Social Sciences Elective	3
Elective:			
Ed	453	Preparation of Classroom Materials	2
or			
Eng	364	Dramatic Production	3
			<hr/>
			36 or 37

## SENIOR YEAR

Ed	401	Philosophy of Education	3
Ed	402	Student Teaching	12
Eng	210	American Literature	3
Eng	—	Speech Electives	3
Mus Ed	400	Music Administration and Supervision	3
Mus	400	Orchestration	3
Mus	403	Vocal Ensemble	$\frac{1}{2}$
Mus	404	Recital Class	$\frac{1}{2}$
SS	—	Social Sciences Electives	6
			<hr/>
			34

# Curriculum for Industrial Arts Education Majors

## General Education

Industrial Arts students are required to take the same basic core of general education courses outlined for all majors. In addition, they must complete the following:

			Credit Hours
Ms	103	Elements of Mathematics with Applications II	3
IA	260	Modern Industry	3
		Electives	6-9

The total number of credit hours in the general education sequence is 56-59.

## Professional Education

The minimum number of professional education courses required of industrial arts majors is the same as that for other majors, except those in Secondary Education. The Curriculum, Methods and Materials course, for 6 credits, consists of the following:

			Credit Hours
IA Ed	300	Analysis and Course Development	3
IA Ed	350	Methods and Materials of Instruction	3

Other courses required in the professional sequence are:

IA Ed	404	Seminar in Teaching	2
IA Ed	450	Laboratory Organization and Management	3

The total number of credit hours in professional education is 33.

## Technical Education

To be qualified to teach in the comprehensive general laboratories of the State, all majors must complete the following:

IA 103	Introduction to Technology	3
Manufacturing and Construction Industries		
IA 151, 205, 206, 208*, 305, 306		14
Power-Transportation Industries		
IA 207, 307		6
Electrical-Electronics Industries		
IA 208, 308		6
Graphic Communication Industries		
IA 104, 150, 152, 204, 309		10
Service Industries		
IA 207*, 306*, 307*, 308*		
Electives		
IA 410, 411, 412, 413		3
IA 450 through 470		4-6

\*Unit within courses indicated

The total number of credit hours both required and elective in the technical sequence is 46-48.





## Industrial Arts Curriculum

### FRESHMAN YEAR

			Class Hours	Credit Hours				Class Hours	Credit Hours
Eng	100	English Comp. I	3	3	Eng	101	English Comp. II	3	3
Ms	102	Math I with App.	3	3	Ms	103	Math II with App.	3	3
PE	102	Health	2	2	Sci	100a	Phys. Sc. Concepts	4	3
PE	100	Physical Education	2	½	PE	101	Phys. Education	2	½
FA	100	Art Appr. & Hist.	3	3	Ed	100	American School	2	2
IA	103	Intr. to Technology	6	3	IA	150	Graphic Arts I	4	2
IA	104	Graphics I	4	2	IA	151	Crafts Ind. I	4	2
			23	16½				26	17½

### SOPHOMORE YEAR

Sci	200	Biological Science	6	4	FA	101	Music Apprec.	3	3
Psy	200	General Psychology	3	3	Eng	—	Literature	3	3
PE	200	Phys. Education	2	$\frac{1}{2}$	Eng	—	Speech Electives	3	3
IA	204	Graphics III	4	2	SS	—	Elective	3	3
IA	205	Wood Tech. I	6	3	PE	201	Phys. Education	2	$\frac{1}{2}$
IA	206	Metal Tech. I	6	3	IA	207	Power & Trans. I	6	3
(IA	207	Power & Trans. I	6	3)	IA	208	Electronics I	6	3
(IA	208	Electronics I	6	3)	(IA	205	Wood Tech. I	6	3)
IA	260	Modern Industry	3	3	(IA	206	Metal Tech. I	6	3)
			30	18 $\frac{1}{2}$				26	18 $\frac{1}{2}$

JUNIOR YEAR

Psy	300	Human Growth & Dev.	3	3	SS	—	Elective	3	3
IA Ed	300	Anal. & Course Dev.	3	3	IA Ed	350	Methods & Mat.	4	3
IA	305	Wood Tech. II	6	3	IA	307	Power & Trans. II	6	3
IA	306	Metal Tech. II	6	3	IA	308	Electronics II	6	3
(IA	307	Power & Trans. II	6	3)	(IA	305	Wood Tech. II	6	3)
(IA	308	Electronics II	6	3)	(IA	306	Metal Tech. II	6	3)
IA	309	Graphic Arts II	4	2	(Minor)		Tech. Elective	4	2
		Free Elective (Tech. or G.E.)			4(3)	2(3)			G.E. Elective	3	3
								<hr/>	<hr/>
								26	17

SENIOR YEAR

Ed	402	Student Teaching	12	SS	—	Elective	3	3	
Ed	411	Measurement and Eval.	2	Ed	401	Phil. of Educ.	3	3	
IA Ed	404	Seminar in Teaching	2	IA Ed	450	Lab. Org. & Mgt.	3	3	
				(Major)		Tech. Elective	6	3	
				(Minor)		Tech. Elective	4	2	
						G.E. Elective	3	3	
								22	17

Technical Electives

Major:	IA 410	Wood Tech. III
	IA 411	Metal Tech. III
	IA 412	Power & Trans. III
	IA 413	Electronics III
	(6 class hours and 3 semester hours)	
Minor:	IA 450	Graphics IV
	IA 451	Materials Testing
	IA 452	Instrumentation
	IA 453	Fluid Power
	IA 454	Graphic Arts III
	IA 455	Graphic Arts IV
	IA 456	Crafts Industries II
	IA 457	Plastics Technology
	IA 458	Metal Tech. IV
	(4 class hours and 2 semester hours)	
	IA 470	Computer Technology

Social Sciences Electives

SS	100	Western Civilization I
SS	101	Western Civilization II
SS	200	U. S. History
	or 201	
SS	202	Principles of Geography
SS	203	Sociology
SS	204	American Government
SS	300	Economics

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.



# Program for Vocational-Industrial Education

This program is designed to prepare instructors for the teaching of vocational-industrial and/or technical subjects in the high schools and post-secondary schools in Maine. Candidates for the degree with a major in Trade and Industrial Education must be eligible for vocational teaching certification.

## General Education

Trade and Industrial students are required to complete the same basic core of general education courses outlined for all majors. In addition, they must complete the following:

			Credit Hours
IA	260	Modern Industry	3
Ms	—	Math (elective)	3
Sci	—	Science (elective) Physics or Chemistry	4

The total number of credit hours in the general education sequence is 50.

## Professional Education

Ed	309	Secondary Curriculum	3
Psy	300	Human Growth and Development	3
VE	200	Trade Analysis	3
VE	205	Curriculum Development in Vocational Education	3
VE	210	Methods and Materials of Instruction in Vocational Education	3
VE	250	Shop Organization and Management	3
VE	350	Philosophy of Vocational Education	3
VE	402	Student Teaching in Vocational Education	6
VE	411	Measurement and Evaluation (vocational)	3

The total number of credit hours required in professional education is 27.

## Area of Specialization

VE	400	Trade Experience, verified (Credits will be determined by rating plan)	45 credits maximum
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## Recommended Electives

VE	315	Learning and Programmed Instruction	3
VE	320	Coordination of Cooperative Education	3
VE	325	Conference Leading	3
VE	330	Principles and Practices of Vocational Guidance	3
VE	450	Local Administration and Supervision of Vocational Education	3
VE	455	Development of Technical Education	3



## The Liberal Arts Program at Gorham

Upon graduation the student receives the Bachelor of Arts degree. The College offers majors in Biological Science, English, Theatre and Speech, History, and Mathematics. The Liberal Arts candidate is required to complete 47 to 63 credit hours in general education as follows:

	Credit Hours	Credit Hours
English		12
English Composition	(6)	
Literature	(6)	
Fine Arts		6
(Choose two of three)		
Art Appreciation and History	(3)	
Music Appreciation and History	(3)	
Theatre Appreciation and History	(3)	
Foreign Language <sup>1</sup>		0-14
Mathematics or Logic		3
Philosophy		3
Physical Education	(Two Years)	2
Psychology		3
Sciences (one year of laboratory science)		6-8
Social Sciences		12
Western Civilization I and II	(6)	
Two courses <sup>2</sup>	(6)	

Major requirements — at least thirty credits and a maximum of forty-eight credits beyond the courses used to satisfy the core requirements.

<sup>1</sup> Foreign Language — proficiency in one foreign language through the intermediate level. Competency and placement examinations will be given.

<sup>2</sup> Social Sciences — six credits to be chosen from basic freshmen and sophomore courses in Political Science, Sociology, Anthropology, Economics, Geography, and History.



# Freshman Course Requirements at Gorham

Freshman course requirements in Kindergarten-Primary, Elementary, Secondary, and Liberal Arts

## KINDERGARTEN-PRIMARY — ELEMENTARY MAJORS

Course			Credit Hours
Eng	100-101	English Composition I and II	6
Ms	100-101	Elements of Mathematics I and II	6
Sci	100-101	Physical Science	6
FA	100	Art Appreciation and History	3
FA	101	Music Appreciation and History	3
SS	101	Western Civilization II	3
Ed	100	The American School	2
PE	102	College Health	2
PE	100-101	Physical Education	1

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## SECONDARY MAJORS English

Course			Credit Hours
Eng	100-101	English Composition I and II	6
Ms	104	Mathematical Concepts I	3
Sci	100a	Physical Science Concepts	3
FA	100	Art Appreciation and History	3
FA	101	Music Appreciation and History	3
SS	101	Western Civilization II	3
PE	102	College Health	2
PE	100-101	Physical Education	1

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Electives

8 or 9

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## Theatre and Speech

Course			Credit Hours
Eng	100-101	English Composition I and II	6
Ms	104	Mathematics Concepts I	3
Sci	100a	Physical Science Concepts	3
FA	100	Art Appreciation and History	3
FA	101	Music Appreciation and History	3
FA	104	Theatre Appreciation and History	3
SS	101	Modern Civilization	3
PE	102	College Health	2
PE	100-101	Physical Education	1
Eng	250	Basic Speech	3
Elective			3

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## Mathematics

Course			Credit Hours
Eng	100-101	English Composition I and II	6
Ms	150-151	Analytic Geometry and Calculus I and II	6
Ms	270	Foundations I, Sets and Logic	3
Sci	100a	Physical Science Concepts	3
FA	100	Art Appreciation and History	3
FA	101	Music Appreciation and History	3
SS	101	Western Civilization II	3
PE	102	College Health	2
PE	100-101	Physical Education	1

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## History — Social Sciences

Course			Credit Hours
Eng	100-101	English Composition I and II	6
FA	100	Art Appreciation and History	3
FA	101	Music Appreciation and History	3
Ms	104	Mathematical Concepts I	3
Sci	100a	Physical Science Concepts	3
SS	100-101	Western Civilization I and II	6
PE	102	College Health	2
PE	100-101	Physical Education	1
			<hr/>
			27
Electives			5 or 6
			<hr/>
			32 33

## Biological Science

Course			Credit Hours
Eng	100-101	English Composition I and II	6
Ms	104	Mathematical Concepts I	3
FA	101	Music Appreciation and History	3
SS	101	Western Civilization II	3
PE	102	College Health	2
PE	100-101	Physical Education	1
			<hr/>
			18
Required			
Sci	110	General Botany	4
Sci	111	General Zoology	4
Sci	120-121	General Chemistry I & II	8
			<hr/>
			34

## Sciences Area

Course			Credit Hours
Eng	100-101	English Composition I and II	6
Ms	104	Mathematical Concepts I	3
FA	100	Art Appreciation and History	3
FA	101	Music Appreciation and History	3
SS	101	Western Civilization II	3
PE	102	College Health	2
PE	100-101	Physical Education	1
			<hr/>
			21
Register for			
Sci	161-162	Physics I and II	8
or			
Sci	120-121	General Chemistry I and II	8
			<hr/>
			29
Elective			3
			<hr/>
			32



LIBERAL ARTS MAJORS

Biological Science

Course				Credit Hours
Eng	100-101	English Composition I and II		6
FA	100	Art Appreciation and History	)3	
FA	101	Music Appreciation and History	)3	Choose 2 6
FA	104	Theatre Appreciation and History	)3	
PE	100-101	Physical Education		1
Sci	120-121	General Chemistry I & II		8
SS	100-101	Western Civilization I & II		6
		Foreign Language		6-8

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English

Course				Credit Hours
Eng	100-101	English Composition I and II		6
FA	100	Art Appreciation and History	)3	
FA	101	Music Appreciation and History	)3	Choose 2 6
FA	104	Theatre Appreciation and History	)3	
SS	100-101	Western Civilization I & II		6
PE	100-101	Physical Education		1
Sci		1 year Lab Science		6-8
		Foreign Language		6-8

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Theatre and Speech

Course				Credit Hours
Eng	250	Basic Speech		3
Eng	100-101	English Composition		6
FA	100	Art Appreciation	)3	
FA	101	Music Appreciation and History	)3	Choose 2 6
FA	104	Theatre Appreciation and History	)3	
PE	100-101	Physical Education		1
SS	100-101	Western Civilization I & II		6
Sci		1 year Lab Science		6-8
		Foreign Language		6-8

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History

Course				Credit Hours
Eng	100-101	English Composition I and II		6
FA	100	Art Appreciation and History	)3	
FA	101	Music Appreciation and History	)3	Choose 2 6
FA	104	Theatre Appreciation and History	)3	
SS	100-101	Western Civilization I & II		6
PE	100-101	Physical Education		1
Sci		1 year Lab Science		6-8
		Foreign Language		6-8

31-35

Mathematics

Course				Credit Hours
Eng	100-101	English Composition I and II		6
FA	100	Art Appreciation and History	)3	Choose one 3
FA	101	Music Appreciation and History	)3	
FA	104	Theatre Appreciation and History	)3	
Ms	150-151	Analytic Geometry and Calculus I and II		6
Ms	270	Foundations I, Sets and Logic		3
PE	100-101	Physical Education		1
Sci		1 year Lab Science		6-8
		Foreign Language		6-8

31-35



## Courses of Study at Gorham





## Art

Assistant Professors Miner, Moore, Sawtelle, Ubans.

### **FA 100 Art Appreciation and History**

Mr. 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 through its format is to involve the student in direct experiences affecting his own perception of the forces shaping the visual forms of the contemporary world.

Three credit hours

### **FA 105 Film as Image and Idea**

Mr. 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 the motion pictures to their present state.

Three credit hours

### **FA 200 Art Fundamentals**

Mrs. Sawtelle

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.

Two credit hours

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

Mr. Miner

Examination and discussion of the early epochs of art from prehistoric through Roman. 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 art teacher are explored. The first half of an overview of the visual arts emphasizing the interrelationships of cultural values and the forms of art. Prerequisite: Permission of instructor.

Three credit hours

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

Mr. Miner

A continuation of Art 111 from the advent of Christianity through the 20th Century. Special regard is given to the achievement of the Renaissance period and the emergence of the Modern point of view in the 19th Century. In both semesters of the course examples of architecture and sculpture as well as paintings are used as the basis of inquiry. Prerequisite: Art 111.

Three credit hours

**Art 141 Design I**

A coordinated series of experiments with basic design problems directed toward developing a sense of personal integrity, an awareness of the design potential, and the confidence, imagination, and skill needed to realize these potentials. Problems in color and light, systems of space, and visual design of lettering, stressing the presentation and use of basic tools. Prerequisite: Matriculation in Art Curriculum or permission of instructor.

Three credit hours

**Art 142 Design II**

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

Three credit hours

**Art 151 Drawing I**

Mr. Moore

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

Three credit hours

**Art 152 Drawing II**

Mr. Moore

An introduction to drawing from the model. Prerequisite: Art 151.

Three credit hours

**Art 231 Handcrafts**

Mrs. Sawtelle

An introduction to the general handcrafts using simple tools and materials. Prerequisite: Art 241.

Three credit hours

**Art 241 Design III**

Problems in three-dimensional design utilizing the systemic study of order and space. Construction and analysis of basic forms in various materials (paper, wood, clay, plaster, and plastics). Prerequisite: Art 142.

Three credit hours

**Art 242 Design IV**

Investigation of advanced design problems with emphasis on presentation. Prerequisite: Art 241.

Three credit hours

**Art 251 Drawing III**

Mr. Ubans

Extensive combining of media. Stress on the role of images in drawing. Prerequisite: Art 152.

Three credit hours

**Art 252 Drawing IV**

Mr. Moore

Making personally crystalized and complete drawings and series of drawings. Prerequisite: Art 251.

Three credit hours

**Art 261 Painting I (materials & techniques)**

Mr. Ubans

Pigments, grounds, and methods of paints in varying media (oil, synthetic, encaustic, egg tempera, and fresco). Emphasis on technical and formal problems. Prerequisite: Art 251.

Three credit hours

**Art 262 Painting II**

Mr. Ubans

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: Art 261.

Three credit hours

**Art 271 Photography I**

Mr. 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 photography as an art form. Prerequisite: Art 241.

Three credit hours



## **CORHAM**

### **Art 281 Printmaking I**

Mr. Moore

The crafts of woodcut, silk screen, drypoint, etching, engraving, lithography, and mixed processes. Prerequisite: Art 251.

Three credit hours

### **Art 282 Printmaking II**

Mr. Moore

An extension and refinement of Printmaking I relevant to the inclusion of personal designs and images. Prerequisite: Art 281.

Three credit hours

### **Art 291 Sculpture I**

Theory and practice of sculptural composition calling for modeling, carving, welding, and casting. Emphasis on the understanding of the separate nature of carved, modeled, and constructed forms and the value of the character of the material to the final work. Prerequisite: Art 241.

Three credit hours

### **Art 292 Sculpture II**

The theory and practice of sculptural composition with work carried out in relief and in full-round. Experience with a wide variety of materials and techniques. Prerequisite: Art 291.

Three credit hours

### **Art 314 Renaissance Art**

Mr. 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: Art 112.

Three credit hours

### **Art 317 Modern Art**

Mr. Miner

The development of art and architecture from the time of Manet: 1850 to 1950 — the century or redefinition; the invention of photography, the development of the skyscraper. Prerequisite: Art 112.

Three credit hours

### **Art 318 Contemporary Art**

Mr. Ubans

Examination of current developments in all the visual media: 1950 to the present. Prerequisite: Art 112.

Three credit hours

### **Art 331 Ceramics I**

An introduction to the methods and processes of forming clay, including the potter's wheel, hand building, and slip-casting. Emphasis upon the study of form, color, and texture is balanced with concern for technical aspects of the ceramics arts, including glaze composition and firing procedures. Prerequisite: Art 241.

Three credit hours

### **Art 332 Metalwork I**

An introduction to the methods and processes of forming and treating metals, by forging, casting, enameling, stone-setting, vessel-raising. Emphasis upon craftsmanship and design concepts. Prerequisite: Art 241.

Three credit hours

### **Art 333 Weaving I**

Mrs. Sawtelle

A study of basic terms, tools, and procedures used in weaving; simple cardboard and wood looms are made and used for projects. Prerequisite: Art 241.

Three credit hours

### **Art 334 Ceramics II**

The application of design principles in the production of ceramics wares with concentration on wheel throw forming, glaze fabrication, production methods, kiln construction, and laboratory techniques. Prerequisite: Art 331.

Three credit hours

### **Art 336 Weaving II**

Mrs. Sawtelle

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: Art 333.

Three credit hours

**Art 351 Drawing V**

Continued drawing from the tangible world with emphasis on independent direction and fulfillment of potential. Prerequisite: Art 252.

Three credit hours

Mr. Moore

**Art 352 Drawing VI**

A continuation of Drawing V. Prerequisite: Art 351.

Three credit hours

Mr. Moore

**Art 361 Painting III**

Exploration of the concepts and techniques of painting with emphasis on individual expression. Prerequisite: Art 262.

Three credit hours

Mr. Ubans

**Art 362 Painting IV**

Continuation of Painting III. Emphasis on individual concepts and personal expression. Prerequisite: Art 361.

Three credit hours

Mr. Ubans

**Art 371 Photography II**

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

Three credit hours

Mr. Miner

**Art 411 Aesthetics and Art Criticism**

An investigation into the theories of art and beauty found in the writings of philosophers, painters, writers, and critics which form the basis of our understanding of the fine arts. Readings and discussion of writers from ancient to modern times. Prerequisite: Art 112.

Three credit hours

**Art 461 Painting V**

Continuation of Painting IV. Investigation of advanced painting problems with emphasis on individual expression. Prerequisite: Art 362.

Three credit hours

**Art Ed 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: Sophomore standing.

Three credit hours

Mrs. Sawtelle

**Art Ed 321 Principles & 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: Junior standing.

Three credit hours

Mrs. Sawtelle

**Art Ed 421 Problems of Teaching and Supervision**

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: Senior standing.

Two credit hours







## Education and Psychology

Professors Cobb, Hempel, Paradise, Southworth; Associate Professors Bowman, M. Costello, Gutzmer, Hackett, Milbury, O'Donnell, Mildred Peabody, C. Smith, P. Smith; Assistant Professors Bergeson, Fickett, Littlefield, Walker; Mr. Allen, Mr. Davis, Mr. Small.

### Ed 100 The American School

Mr. Hackett, Mr. Small

An introduction to public education — its history, organization, functions, and issues. Elementary and secondary curricula, including special areas, are considered, as well as the social, economic, and professional aspects of teaching. School visitations provide opportunities for self-evaluation and direction.

Two credit hours

### Ed 200 Preprofessional Field Experiences

The 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 biweekly seminar in the school setting. An elective primarily for sophomores with enrollment limited to four sections scheduled on Tuesday or Thursday mornings. (Pass-fail only.)

Two credit hours

### Ed 300 Primary Curriculum: Methods and Materials

Mr. O'Donnell, Miss Mildred Peabody

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.

Three credit hours

### Ed 302 Elementary Curriculum: Methods and Materials

Mrs. 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.

Three credit hours

**Ed 303 Primary Reading**

Mr. O'Donnell, Miss Mildred Peabody

Approved methods in the teaching of reading at all levels, with special emphasis on the beginning reading program. Comparisons of the various reading procedures used currently, including the developmental program, independent reading, grouping, phonetic approach, reading readiness, study skills, ungraded reading, and remedial problems. Introduction to the tachistoscope, accelerator, and reading laboratory. Analysis of recent textbooks in the Curriculum Laboratory. Observation and participation.

Three credit hours

**Ed 304 Elementary Reading**

Mr. Fickett

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

**Ed 305 Primary Arithmetic**

Miss Mary Peabody

The new approach in teaching arithmetic in primary grades, overview of all levels, and applied work in primary-grade area. Preparation of materials; study of current textbooks and experimental programs; analysis of content needed to provide orientation in structure, properties, sets, number systems, and other basic themes of modern mathematics.

Three credit hours

**Ed 306 Elementary Arithmetic**

Mr. Allen

This course closely parallels Ed 305 except that it is concerned with teaching arithmetic in the elementary grades.

Three credit hours

**Ed 307 Secondary Reading**

Mr. Walker

Currently approved methods in the teaching of reading. A comparison, with emphasis on continuity, of various reading procedures. Word analysis and reading study skills as they apply to each subject-matter area of the secondary school.

**Ed 308 Science and Health for the Primary Teacher**

Mrs. Kerr

An inductive, scientific approach to science and health, from kindergarten through third grade; materials, experiments, and themes appropriate to this level; use of a teaching team to interrelate health and physical education.

Two credit hours

**Ed 309 Secondary Curriculum**

Mr. Gutzmer, Mr. Hackett

Involves the historical and philosophical perspective of secondary education in the United States; school law, services, and professional organizations; classroom procedures, including lesson planning, discipline, grouping, and evaluation; curriculum development, objectives, and organizational patterns. Visitations in secondary schools are a part of the course.

Three credit hours

**Ed 310 Science and Health for the Elementary Teacher**

Mrs. Kerr

Problems and methods of teaching science and health. Current practices and teaching materials are emphasized and evaluated.

Two credit hours

**Ed 313 Utilization of Instructional Materials**

The Staff

A course designed to orient the pre-service and the in-service teacher to the current trend in instructional media. Instruction will be directed to proper utilization and operation of the latest available equipment. There will be provision for associated laboratory work.

Three credit hours

**Ed 340 Teaching Language Arts in the Elementary School**

Mrs. 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.

Three credit hours

**Ed 350 Maine School Law**

Mr. 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.

Two credit hours



## GORHAM

### Ed 360 The Role of Education in Social Change

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

### Ed 361 Culture Concepts in Education

Mr. Gutzmer

This course is designed to better equip teachers with (1) a sense of variation in cultures, (2) the molar aspects of culture, (3) a respect for cultural differences, (4) and the application and integration of cultural concepts.

Three credit hours

### Ed 401 Philosophy of Education

Mr. James Whitten

A course designed to explore the importance of philosophy as it relates to the theory and practice of education. The role of philosophy in personal and professional life is the central theme of the course.

Three credit hours

### Ed 402 Student Teaching

The Staff

For one semester of the senior year all students are assigned to full-time student teaching under careful supervision. The semester is divided into two terms to provide opportunities to teach in two different situations; for this purpose the Millett Laboratory School, the Village Elementary School, and other cooperating schools are utilized. Student teaching embraces the following categories: Kindergarten-Primary, Elementary, Junior-Senior High School, Music, Art, and Industrial Arts.

Twelve credit hours

### Ed 403 Seminar in Primary Education

Miss Mildred Peabody

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

### Ed 404 Seminar in Elementary Education

Mr. Hempel, Mrs. Costello

A study of basic issues in elementary education: school law; professional and ethical procedures; organization of student teaching; and teacher relationships with schools, community, and state.

Two credit hours

### Ed 405 Seminar in Secondary Education

Mr. Gutzmer

A group discussion concerned with student teachers' questions and answers.

Two credit hours

### Ed 411 Measurement and Evaluation

Mr. Bowman, Mr. Charles Smith

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.

Two credit hours

### Ed 420 Kindergarten Development

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: Ed 300.

Two credit hours

### Ed 428 Atypical Reading Patterns

Mr. 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.

Three credit hours

### Ed 452 Remedial Reading

Miss Mildred Peabody

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. Prerequisite: a grade of A or B in Ed 303, 304, or 307.

Three credit hours

**Ed 453 Preparation of Classroom Instructional Materials**

Mr. Milbury, Mr. Bergeson

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.

Two or three credit hours

**Ed 454 Advanced Production of Audio-Visual Materials**

Mr. Milbury, Mr. Bergeson

Further sophistication of insight and refinement of skills in the local production of instructional materials. Prerequisite: Successful completion of Ed 453. Limited to twelve students.

Three credit hours

**Ed 499 Independent Study in Education**

The Staff

To provide juniors and seniors in kindergarten-primary and elementary education 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.

One to three credit hours

**Psy 200 General Psychology**

Mr. Southworth, Mr. Paradise

An introductory course emphasizing the development of a psychological vocabulary, a way of thinking, and the application of basic principles to everyday living. Major topics include motivation, emotions, intelligence, effective learning and thinking.

Three credit hours

**Psy 300 Human Growth and Development**

Mr. 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. Prerequisite: Psy 200.

Three credit hours

**Psy 401 Psychology of the Self**

Mr. Southworth

An exploration into the development of the self as it is influenced by perception, learning, and teaching. Topics include such areas as alienation, loneliness, and verbal-nonverbal communication. Learning techniques center around extensive reading, common class experiences, and intensive small group interaction.

Three credit hours

**Psy 402 Group Dynamics**

Mr. Southworth

A study of the nature and function of individuals in a group situation. A sensitive awareness of one's self in relation to others in a group is of importance. Problems of leadership, roles filled, and techniques will be an integral part of the course. The intent is to have the class members function and learn through a laboratory experience in small group dynamics.

Three credit hours

**Psy 405 Psychology of Learning**

Mr. Paradise

Basic principles underlying the acquisition and retention of knowledge such as conditioning, memory, forgetting, transfer of training, problem solving, insight, concept formation, and individual differences in learning. Brief consideration of learning theories. Emphasis on the application of current principles to human learning. Open to juniors and seniors. Prerequisite: Psy 300.

Three credit hours

**Psy 406 Psychology of Motivation**

Mr. Paradise

Nature and determinants of motivation with emphasis given to research focusing on concepts such as drive, activation, arousal, motivational systems, and affect. Brief consideration of motivation theories. Application of current principles of motivation to human behavior. Open to juniors and seniors. Prerequisite: Psy 300.

Three credit hours

**Psy 407 Psychology of Perception**

Mr. Paradise

A consideration of current research in the field of perception in such areas as attention, perceptual development, perceptual change, adaptation, perceptual learning, perceptual organization, and the influence of social and motivational aspects. Discussion of concept formation and thinking. Open to juniors and seniors. Prerequisite: Psy 300.

Three credit hours

**Psy 410 Abnormal Psychology**

Mr. Paradise

A study of abnormal behavior — its history, causes, prevention, and treatment. Description of neuroses and psychoses and methods of identifying them. Case studies are included to illustrate each type of illness.

Three credit hours





## English

Professors Hanna, Rutherford; Associate Professors Reuter, Rootes, Stump, Weeks; Assistant Professors Carner, O'Reilly, Pic'l, Rosen, Sawyer, Slavick, Vincent.

### FA 104 Theatre Appreciation and History

Mr. Stump

A basic course in theatre. Designed to familiarize the student with plays of various genre, periods, and styles and the elements of production. Includes the study of the influences of playwrights, production, and dramatic criticism on dramatic art as observed in current theatre.

Three credit hours

### Eng 100 English Composition I

The Staff

In this first half of the basic freshman English course students are habituated to close reading and disciplined writing — descriptive, expository, and argumentative. The focus is on a linguistic and rhetorical analysis of essays, articles, and key passages in the works of successful non-fiction writers both past and present. Although readings are chosen for their controversial value and contemporary relevance, the student's attention is directed primarily to the nature and use of language. Major considerations include levels of English usage, semantics, logical fallacies, propaganda devices, advertising appeals, problems of style and structure, and the importance of the writer's "voice." Conferences, regular writing assignments, and a term paper. Credit is withheld from students who fail to demonstrate satisfactory writing ability. Eng 100 and Eng 101 are prerequisite to all other English courses.

Three credit hours

### Eng 101 English Composition II

The Staff

In this second half of the basic freshman English course students develop a more mature and perceptive approach to critical reading and writing through a detailed introduction to three literary genres — the short story, poetry, and drama. Chief course objectives: greater precision in the use of critical terms; a firmer grasp of the relationship between the parts of a literary work and its total structure and meaning; a more just and sensitive interpretation of literary themes; and a more sophisticated and resourceful method of critical evaluation. Conferences with the instructor in preparation for classroom reports, exercises, and critical papers. Prerequisite: Eng 100.

Three credit hours

**Eng 120, 121, 122, 123 Theatre Workshop**

Mr. Rootes

A course designed to give students practical application of theatre practices in the field of acting, design, scene construction, costuming, properties, lighting, and makeup. A laboratory course.

One credit hour each

**Eng 200 Great Writers**

The Staff

A study of works from three or more great writers from European, English, and American literature. Selection of writers for this course will be made by individual instructors from a list on file in the English office. The list includes such writers as Homer, Sophocles, Plato, Cervantes, Goethe, Ibsen, and Camus; Chaucer, Shakespeare, Donne, Milton, Blake, Keats, Tennyson, and Joyce; Thoreau, Whitman, Melville, Twain, Frost, Hemingway, and Eliot. Oral reports and assigned critiques.

Three credit hours

**Eng 205 Greek Epic, Tragedy, and Comedy**

Mr. 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. The Aristotelian components of tragedy. Three comedies by Aristophanes—their structure, thought, tone, and style. Virgil's *Aeneid* and its indebtedness to Homer. Oral reports, class discussions, short critical papers.

Three credit hours

**Eng 206 Great Continental Novelists**

Mr. Hanna

A study and interpretation of eight representative works of European fiction and of underlying literary and historical trends. In 1970-71 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 discussions, short critical papers.

Three credit hours

**Eng 222 Argumentation and Debate**

Mr. Pic'l

A lecture, discussion, and performance course designed to equip the student with the knowledge and skill to effectively employ logic and evidence in oral discourse. Students will learn the principles and techniques of analysis, development, support, defense, and attack in connection with debatable propositions. Practice in argumentative speaking and debating.

Three credit hours

**Eng 225 Children's Literature**

Miss Sawyer

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. Does not count toward English major or minor.

Two credit hours

**Eng 230 Fundamentals of Acting**

Mr. Rootes

A course designed to educate and train the student to convey thought and emotion through the use of the body and voice. Mime, vocal exercises, and improvisation. A study of the major styles of acting and of the various approaches to acting with emphasis on the Stanislavsky method.

Three credit hours

**Eng 240 Persuasion**

Mr. Stump

A lecture-discussion-performance course in the 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

**Eng 250 Basic Speech**

The Staff

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 communication models and networks; the study of language and psycholinguistics; the study of logic, dialectic, critical, and creative thinking. These topics are brought to focus upon the problems of misunderstanding and their remedy.

Three credit hours



## **GORHAM**

### **Eng 270 Speech Mechanism and Phonetics**

Mr. Stump

A study of the physical speech mechanism and its relationship to respiration, phonation, articulation and resonance, and a study of English sounds, their recognition, production, and transcription.

Three credit hours

### **Eng 260, 261, 262, 263 Intercollegiate Debate**

Mr. Pic'l

Participation in intercollegiate competitive debate. This is essentially a laboratory course in which the student receives individual help in preparation for competition. Emphasis is placed upon analysis, research, case development, presentation, refutation, and rebuttal.

One-half credit hour

### **Eng 265 Oral Interpretation**

Mr. Stump

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 primarily to aid the teacher in motivating student interest and developing skill in reading literature.

Three credit hours

### **Eng 330 Playwriting**

Mr. 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 several one-act plays. Prerequisite: Permission of instructor.

Three credit hours

### **Eng 340 History of the Theatre**

Mr. Stump

Intended to give the student a knowledge of the specific conditions under which the great plays of the western world have been produced. The course is a study of the audience, actors, patrons, physical conditions, architecture, and the relation of the theatre to the various arts from the Greek period to modern times.

Three credit hours

### **Eng 344 Rhetorical Theory**

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

Three credit hours

### **Eng 345 Speech Correction for the Classroom Teacher**

A lecture-discussion course designed to familiarize teacher-trainees with the classification of speech and hearing disorders, voice and diction, and methods of therapy. Emphasis is upon rehabilitation that can be given by the teacher to students in the classroom situation.

Three credit hours

### **Eng 351 Advanced Writing**

Mr. Vincent

For students desiring to gain increased proficiency in writing. Study of various forms of discourse, but with concentration on exposition. Considers such aspects of writing as persona, appeal to reader, style, logic, strategy, etc.

Three credit hours

### **Eng 352-353 Shakespeare**

Mr. Vincent

A study of representative plays. Selections from among the following: the histories, with emphasis on the Lancastrian epic; the Roman plays; the comedies—farce, romantic comedy, problem play, romance; and tragedies. Discussion of the Elizabethan stage, textual problems, and Shakespeare's style. Background reading and a critical paper. Separate play offerings covering all genres in each semester.

Three credit hours each semester

### **Eng 364 Dramatic Production**

Mr. Rootes

A basic course in dramatic production covering such areas as setting, lighting, costuming, makeup, direction, and theatre management. Each class will do production work on a play. Laboratory.

Three credit hours

### **Eng 366 Romantic Prose and Poetry**

Mr. Hanna

Seven major poets of the Romantic era: Burns, Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats. Four essayists: Coleridge, Lamb, Hazlitt, and De Quincey. The "Romantic Revolt" as a cultural and aesthetic force both in Britain and on the Continent. Semantic problems implicit in "Neo-classicism," "Romanticism," and "Realism." Oral reports and short critiques.

Three credit hours

**Eng 367 Victorian Prose and Poetry**

Mr. 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.

Three credit hours

**Eng 370 Literature of the American Colonial and Revolutionary Period**

A study of the Puritan theology, politics, and sensibilities. Among writers considered are: Bradford, Taylor, Mather, Franklin, and Edwards. The literature of the American Revolution and early examples of romantic and other creative forms.

Three credit hours

**Eng 371 The New England Renaissance**

A study of the New England movement and its European backgrounds. The emphasis will be on the five major writers of the period: Emerson, Thoreau, Hawthorne, Melville, Whitman.

Three credit hours

**Eng 373 American Fiction I: Romanticism to Realism**

A study of the early romantic fiction of America and its emergence as Realism and Naturalism exemplified in such authors as Brown, Irving, Poe, Hawthorne, Melville, Twain, Howells, Crane, and James.

Three credit hours

**Eng 374 American Fiction II — 20th Century**

A study of the short story and novel from World War I to the present day. Dreiser, Anderson, Lewis, Fitzgerald, Dos Passos, Hemingway, Faulkner, and selected writers of fiction since World War II.

Three credit hours

**Eng 375 Major Figures in American Literature**

In-depth studies of one or two major authors at the discretion of the department and instructor. Opportunities for a variety of critical approaches—formal, psychological, sociological, archetypal, and comparative.

Three credit hours

**Eng 376 20th Century American Poetry**

A study of the major poets of the twentieth century with particular attention to Eliot, Stevens, Hart Crane, W. C. Williams, Robert Lowell.

Three credit hours

**Eng 377 American Drama**

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

Three credit hours

**Eng 380 Introduction to Linguistics**

Mr. Rutherford

A general introduction to modern linguistic science, including studies in the development of the 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.

Three credit hours

**Eng 381 Medieval Prose and Poetry**

A study of non-Chaucerian literature of the Middle Ages. Among other works and figures: *The Matter of Britain* (Arthurian literature), *Piers Plowman*, Gower, *The Pearl* poet, the Scottish Chaucerians, John Skelton, Robert Henryson, native romances, lyrics, and ballads.

Three credit hours

**Eng 382 Chaucer**

Mr. Reuter

A close textual study of the most significant English poet of the middle ages, a man who conducted his own "personal Renaissance" a century and a half before the full flowering of that movement in England.

Readings will include all of the *Canterbury Tales* and *Troilus and Criseyde* as well as some of the more significant minor works such as *The Book of the Duchess*, *The House of Fame*, and *The Parlement of Foules*.

Three credit hours

**Eng 383 Sixteenth Century Prose and Poetry**

Mr. Reuter

Readings progress from continental backgrounds of the Renaissance to a survey of English nondramatic literature from Skelton through Spenser. Parallel studies in historical theory, criticism, religious controversy, science, philosophy, language awareness, and the interaction of the Renaissance and Reformation with Humanism.

Three credit hours



## GORHAM

### Eng 384 17th Century Prose and Poetry

Mr. Reuter

A study of major non-dramatic writers of the 17th century exclusive of Milton and Dryden. Included will be: Bacon, Donne, Jonson, Burton, Hobbes, Herrick, Herbert, Vaughan, Marvell, Suckling, Crashaw, Carew, Browne, Traherne, Bunyan, Pepys.

Three credit hours

### Eng 385 The Rise of the English Novel

A study of the evolving English novel from its sources in epic, romance, and picaresque tale to the great central tradition of eighteenth-century fiction finally threatened by tea-cup sentimentalism and Gothic terror. Chief figures: Defoe, Richardson, Fielding, Sterne, Smollett, Austen, Scott. Oral reports and assigned critiques.

Three credit hours

### Eng 386 Restoration and Early 18th Century Prose and Poetry

Mr. Weeks

A thorough study of the dominant modes and genres of the period with special emphasis on satire and its classical backgrounds. Readings in Dryden, Pope, Swift, Gay, and a few minor writers such as Rochester, Butler, and Wilmot.

Three credit hours

### Eng 387 The Later 18th Century and the Decline of Neo-Classicism

Mr. Weeks

Readings in the pre-Romantics poets: Thomson, Young, Gray, Collins, Cowper, and Crabbe; and in Johnson, Boswell, Goldsmith, and Burke.

Three credit hours

### Eng 389 Restoration Drama

Mr. 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.

Three credit hours

### Eng 390 Special Studies in Literature

The Staff

A study of special areas of literature not represented in the present catalogue offerings. This course provides the opportunity for exploring special interests of faculty and students; for example, the development of a theme that crosses periods and genres; the comparative study of texts; the examination of aesthetics in the contents of changing ideas and social and cultural developments. To be offered at the discretion of the English faculty and in accord with student demand.

Three credit hours

### Eng 421 Poetry Workshop

Mr. Rosen

Practice in writing poetry, including class discussion of individual manuscripts and individual conferences with the instructor.

Three credit hours

### Eng 422 Fiction Workshop

Practice in writing fiction, including class discussion of individual manuscripts and individual conferences with the instructor.

Three credit hours

### Eng 430 Modern Grammar

Mr. 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. Students in secondary education will focus on practical classroom applications.

Three credit hours

### Eng 440 History of the English Language

Mr. 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.

Three credit hours

### Eng 452 Fundamentals of Directing

Mr. Rootes

Designed to train directors in theatrical organization and rehearsal techniques. Encompasses composition, picturization, movement, rhythm, and pantomimic dramatization. Course involves both contemporary theory and practical application. Prerequisite: Eng 230 and Eng 364.

Three credit hours

**Eng 453 English Drama, 1580-1642**

Mr. Reuter

Covers the major plays by the major predecessors, contemporaries, and successors of Shakespeare. The plays are considered as individual works, for their structure and content, as representative of the work of their authors, and as illustrative of the dramatic conventions and theatrical practices of their period.

Three credit hours

**Eng 455 The Nineteenth Century English Novel**

Miss Sawyer

The monumental works of those novelists largely responsible for England's high-water mark in nineteenth-century world literature: Thackeray, Dickens, the Brontës, George Eliot, Meredith, Hardy, and James. Close structural analysis of the novels as artifacts; thematic analysis of the novels as dramatizations of Victorian dilemmas, moral and spiritual. Oral reports and short written critiques.

Three credit hours

**Eng 456 Creative Writing**

Mr. Vincent

An advanced course focusing on writing a short story for publication. 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.

Three credit hours

**Eng 457 Modern Drama from Ibsen to the Present**

Mr. Stump

Plays by representative authors from the nineteenth century to the present. Centers about the concepts of realism, surrealism, tragedy, and tragi-comedy in the contemporary theatre.

Three credit hours

**Eng 458 20th Century British Poetry**

Mr. O'Reilly

A study of the major poets of the 20th Century with particular attention to Hardy, Hopkins, Yeats, Thomas, and Auden.

Three credit hours

**Eng 459 Modern Novel**

Mr. 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.

Three credit hours

**Eng 460 Modern Short Story**

Mr. 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 470 Literary Criticism**

Mr. Hanna

A seminar in literary analysis and evaluation based on a preliminary review of critical theory from Plato to I. A. Richards. Major consideration will be given to the seven principal critical approaches—historical, biographical, textual, formal, psychological, archetypal, and exponential. Open only to seniors majoring in English.

Three credit hours

**Eng 490 Senior Seminar in Bibliography and Research**

The Staff

An intensive study of a literary period, genre, or figure which will culminate in a major undergraduate research paper. Required of all English majors, this course also fulfills three credit hours of distributive requirements in any one of the four departmental categories. Also for seniors not majoring in English but desiring practice in future graduate research techniques.

Three credit hours



## GORHAM

### Eng 499 Independent Study in English

The 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.

One to three credit hours

### Eng Ed 354 Teaching English in the Secondary School

A methods course for English majors and minors. Review of the basic fundamentals of English grammar and writing skills. Creative approach to the teaching of both grammar and literature at the secondary level.

Three credit hours

## French

Assistant Professors Crochet, Rolfe.

### Fr 100-101 Elementary French

Miss Crochet

A course for the beginning student with emphasis on the four basic language skills — speaking, understanding, reading, and writing.

Eight credit hours  
(Four each semester)

### Fr 200-201 Intermediate French

Mr. Rolfe

For those who have completed Fr 100-101 or two years of high school French. A review and continuation of Fr 100-101 stressing the active use of French.

Six credit hours  
(Three each semester)

### Fr 280-281 Survey of French Literature

Mr. Rolfe

Selected readings in the principal genres from the Middle Ages to the present time.

Six credit hours  
(Three each semester)

### Fr 300-301 French Composition and Conversation

Mr. Rolfe

For those who have completed Fr 200-201 or three or more years of high school French. Intensive training in oral practice and self-expression, the detailed discussion of contemporary French texts, presentation of the more complex points of French grammar.

Six credit hours  
(Three each semester)

## German

### Gr 100-101 Elementary German

Emphasis on development of listening comprehension, speaking, reading, and writing skills. Laboratory practice. For students who have had no German or less than two years of high school German.

Eight credit hours (Four each semester)



## Health and Physical Education

Professor R. Costello; Associate Professors Goodwin, Hodgdon; Assistant Professor Bouchard; Mr. Thomas, Miss Raybould.

### FA 300, 301, 302, 303 Contemporary Dance

Miss Goodwin

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.

One-half credit hour

### PE 100-101, 200-201 W

The Staff

A service program required of all freshmen and sophomore women offering elective courses in archery, badminton, fencing, golf, swimming, skiing, tennis, track and field, basketball, field hockey, lacrosse, softball, volleyball, modern dance, folk dance, officiating, slimmastics and gymnastics.

One-half credit hour

### PE 100-101, 200-201 M

The Staff

A service program required of all freshmen and sophomore men offering elective courses in archery, badminton, fencing, golf, swimming, skiing, tennis, softball, volleyball, modern dance, folk dance, officiating, gymnastics, weight training and conditioning, bowling, soccer, and jogging.

One-half credit hour

### PE 102 College Health

Mr. Costello

Health instruction is a basic and required part of general education. 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 350 Teaching Physical Education in the Elementary School**

Mrs. Hodgdon

Discussion of the principles of planning well-balanced programs of physical education for grades one to six. Opportunity for organizing and teaching activities to elementary age students. Special emphasis upon fundamental skills, sports, games, and gymnastics; and how to teach them in the elementary school program.

Three credit hours

**PE 353 M Coaching, Philosophy and Fundamentals**

Mr. Bouchard

Emphasis on the methods of teaching and coaching soccer, basketball, and baseball; specific offenses and defenses in soccer and basketball will be analyzed; offensive and defensive organization and strategy will be covered in baseball.

Three credit hours

**PE 354 Movement Education in the Elementary School**

Miss Goodwin

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 through six are part of the experience. Activities based on movement skills are stressed. Also traditional and contemporary dance movements, movement exploration, creative activities.

Three credit hours

**PE 355 Physical Education for the Mentally Retarded**

Mr. Costello

This course is planned to help the student understand corrective physical education with emphasis on the mentally retarded. The student has an opportunity to work with 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 451 Organization and Administration of Physical Education**

Mr. Costello

Professional preparation for students interested in physical education. Covers the organization and administration of the required physical education program, intramural offerings, and interscholastic program.





## Industrial Arts

Professors Berry, Greer, Mitchell; Associate Professors Faulkner, Mertens, Slocum; Assistant Professors Carter, Morrill, Warren.

### IA 103 Introduction to Technology

Mr. Mertens

An introductory study of industry and technology and their impact on our culture. Emphasis on the role of industrial arts in developing an understanding of the basic concepts and functions of the manufacturing, construction, power and transportation, electrical-electronics, graphic communications, and service industries. Research, individual and team problems, and activities. Required of all entering department majors.

Three credit hours

### IA 104 Graphics I

Mr. Faulkner

An introduction to the language of industry, its techniques and interpretations. Involves sketching, lettering, use of instruments, theory of shape and size description, geometric constructions, revolution, primary and secondary auxiliaries, orthographic and pictorial projections.

Two credit hours

### IA 150 Graphic Arts I

Mr. Morrill

Introduction to the graphic arts industries and technology. Designing, composing, reproducing and assembling printed materials, utilizing commercial printing, duplication and art techniques. Emphasis on letterpress, rubber stamp making, and direct-image offset reproduction.

Classroom and lab. Two credit hours

### IA 151 Crafts Industries I

Mr. Mertens

An introductory study of those industries concerned with the manufacture of products from ceramic materials, including clay, cement, glass, enamels; plastics, leather, caning and weaving materials; also artistic treatment of wood and metal, as in carving and tooling. Individual activities and problem solving.

Classroom and lab. Two credit hours



**IA 152 Graphics II**

Graphics for the machine and tool manufacturing industries. Includes intersections, developments involving triangulation. Application of the elements of drawing machine parts, threads, fasteners, gears and cams to detail and assembly drawings. Tolerances and related shop processes examined. Experiences in inking, tracing, and printmaking. Prerequisite: IA 104.

Mr. Faulkner

Two credit hours

**IA 204 Graphics III**

Graphics for the construction industries. Includes architectural designing, activity analysis, planning and execution of residential plans. Standard details of construction, printreading, codes, plans, specifications, schedules, and cost analysis. Prerequisite: IA 104.

Mr. Faulkner

Two credit hours

**IA 205 Wood Technology I**

A study of the wood manufacturing industries and technology. Introduction to the concepts of designing, planning, fabricating, finishing, and distribution as they pertain to these industries. Selection, use, and care of equipment. Safety practices.

Mr. Warren

Classroom and lab. Three credit hours

**IA 206 Metal Technology I**

A study of metal manufacturing industries and technology. Introduction to the concepts of designing, planning, fabricating, finishing, and distribution as they pertain to these industries. Selection, use, and care of equipment. Safety practices.

Mr. Berry

Classroom and lab. Three credit hours

**IA 207 Power and Transportation I**

A study of those industries concerned with power, its sources, generation, transmission, and utilization. Analysis of the design and construction of devices involving natural, thermal, and electrical power. Basic principles of internal combustion and their application in power plants. Emphasis on small engines, their construction, maintenance and repair.

Mr. Carter

Classroom and lab. Three credit hours

**IA 208 Electronics I**

A study of the electrical industries with emphasis upon electrical theory, AC and DC generation and distribution. Applications in lighting, signal devices, heating, power and control devices. Testing and service equipment and procedures.

Mr. Slocum

Classroom and lab. Three credit hours

**IA 260 Modern Industry**

Evolution and structure of modern American industry and its impact upon the social, economic, and cultural milieu. Major areas and functions of industry explored include: personnel administration, research and development, production, finance, marketing, and service. Industrial visitations and reports.

Mr. Mertens

Three credit hours

**IA 305 Wood Technology II**

A study of the construction industries including construction principles; layout, foundations, framing, sheathing, and finish. Surveying, plot planning, and earth-moving principles considered. Learning activities centered around scaled structures. Group and individual problems. Prerequisite: IA 205.

Mr. Warren

Classroom and lab. Three credit hours

**IA 306 Metal Technology II**

Metal industries concerned with sheet metal fabrication, electric and gas welding, and machining techniques. Consideration is given to plumbing as it pertains to the construction industries. Individual and group problems. Laboratory and maintenance practices. Prerequisite: IA 206.

Mr. Berry

Classroom and lab. Three credit hours

**IA 307 Power and Transportation II**

A study of power and transportation industries and their devices, equipment, and materials. Emphasis is placed upon methods and means of land, sea, and air travel and transport. Operation, maintenance and repair included. Prerequisite: IA 207.

Mr. Carter

Classroom and lab. Three credit hours

**IA 308 Electronics II**

A study of the electronics industry with emphasis upon vacuum tubes and semi-conductors and their application to radio and audio frequency circuits. Wave propagation, transmission lines, and antennas also considered. Prerequisite: IA 208.

Mr. Slocum

Classroom and lab. Three credit hours

**IA 309 Graphic Arts II**

A study of those industries utilizing photo-offset lithography with emphasis upon camera work, stripping, plate-making, and presswork. Line and display composition and reproduction, screen process printing, and binding techniques are also included. Prerequisite: IA 150.

Mr. Morrill

Classroom and lab. Two credit hours

**IA 350 Arts and Crafts**

Mr. Mertens

The utilization of information and experience in crafts activities to enrich classroom teaching. Crafts for summer counseling, club or community programs, or for recreational interests or needs. Non-majors only.

Two credit hours

**IA 351 Industrial Arts for the Elementary School**

Mr. Mertens

The role of industrial arts in the elementary school. Activities and projects correlating with unit teaching as they enrich the general curriculum. Study of correct material and tool usage, with special emphasis upon safe practices. Non-majors only.

Three credit hours

**IA 410 Wood Technology III**

Mr. Warren

Production and wood manufacturing problems including jigs, fixtures, special machine operations, and newer finishing methods. Patternmaking and laminating are also included. Group and individual research assignments and related technical problems. Prerequisite: IA 305.

Classroom and lab. Three credit hours

**IA 411 Metal Technology III**

Mr. Berry

The technology of metal machining, casting, metallurgy, and metrology. Emphasis on process engineering and quality control. Individual and group activity. Prerequisite: IA 306.

Classroom and lab. Three credit hours

**IA 412 Power and Transportation III**

Mr. Carter

A study of power and transportation industries with emphasis on automotive servicing, including diagnosis, maintenance, repair, and testing. Opportunities for individual research and problem solving. Prerequisite: IA 307.

Classroom and lab. Three credit hours

**IA 413 Electronics III**

Mr. Slocum

Semi-conductors with emphasis on their application in amplifiers, oscillators, power supplies, computers, indicating devices, and other electronic equipment. Prerequisite: IA 308.

Classroom and lab. Three credit hours

**IA 450 Graphics IV**

Mr. Faulkner

A graphical method for solving space or solid analytical geometric problems. Applications of spatial relationships are made to structures and machine components in terms of motion, strength, and total effects.

Two credit hours

**IA 451 Materials Testing**

Mr. Mertens

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. Prerequisites: IA 205, 206.

Classroom and lab. Two credit hours

**IA 452 Instrumentation**

Mr. 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 308.

Classroom and lab. Two credit hours

**IA 453 Fluid Power**

Mr. 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 installations. Prerequisite: IA 207.

Classroom and lab. Two credit hours

**IA 454 Graphic Arts III**

Mr. Morrill

Experiences in photography, lithography, etching, hand bookbinding, die cutting, embossing, and printing on materials with ink and other media. Individual and group activities and technical reports. Prerequisite: IA 309.

Classroom and lab. Two credit hours

**IA 455 Graphic Arts IV**

Mr. Morrill

The study of production problems in the graphic arts industries. Emphasis on graphic design, photographic screen stencils, and other graphic processes. Opportunities for individual experience and development. Prerequisite: IA 454.

Classroom and lab. Two credit hours



## GORHAM

### IA 456 Crafts Industries II

Mr. Mertens

Advanced study of the crafts industries with emphasis on the newer technologies. Examination of artistic crafts for leisure-time activities and for adult programs. Individual and group research and problem solving. Prerequisite: IA 151.

Classroom and lab. Two credit hours

### IA 457 Plastics Technology

Mr. Warren

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 205.

Classroom and lab. Two credit hours

### IA 458 Metal Technology IV

Mr. Berry

Investigation of special machining, fabrication, and metal-finishing techniques. Numerical control, tungsten inert gas welding, tumbling, and electroplating are included. Individual and group research problems and activities. Prerequisite: IA 306.

Classroom and lab. Two credit hours

### IA 470 Computer Technology

Mr. Slocum

A study of how modern digital computers actually perform the tasks assigned to them. Binary logic and basic machine language for the IBM 1620 computer are stressed. Other topics include solid state digital circuitry, (prior electronic knowledge is not assumed); scientific, industrial, and teaching applications; characteristics and capabilities of several large computer systems.

Three credit hours

### IA 499 Independent Study in Industrial Arts

The 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.

One to three credit hours

### IA Ed 300 Analysis and Course Development

Mr. Berry

Evaluation of contemporary curriculums in industrial arts. Analysis of objectives and methods of developing courses utilizing resource, experience, and other instructional units which reflect the needs and interests of students and society. Course-of-study preparation including teaching units. This course must immediately precede IA Ed 350.

Three credit hours

### IA Ed 350 Methods and Materials of Instruction

Classroom and laboratory experience involving the nature and direction of learning. Unit teaching including preparation and use of concept teaching plans, sensory materials, and devices. Mini-lessons, video-taped presentations and critiques, classroom control, and an introduction to evaluation techniques. Observation and participation teaching. Orientation to student teaching. Prerequisites: Psy 300, IA Ed 300.

Four class hours, Three credit hours

### IA Ed 404 Seminar in Teaching

Mr. Mitchell

Investigation, discussion, and possible solutions to problems arising from student teaching experiences. Teacher certification; graduate education; professional and ethical procedures involved in securing and holding a teaching position. Prerequisite: Ed 402.

Two credit hours

### IA Ed 450 Laboratory Organization and Management

Basic principles of organizing and managing an industrial arts laboratory and program. Planning the school laboratory, selection and arrangement of equipment, and organization for implementing a modern program of industrial arts. Safety principles are stressed. Prerequisite: Ed 402.

Three credit hours

# Vocational-Industrial Education

## VE 200 Trade Analysis

Identification of trade fields, units, operations, and items of related information and their organization into units of instruction.

Three credit hours

## VE 205 Curriculum Development in Vocational Education

This course is concerned with developing specific course content from an occupational analysis. The identification of educational needs and objectives precedes the selection and organization of relevant matter. Prerequisite: VE 200.

Three credit hours

## VE 210 Methods and Materials of Instruction

This course treats of the general and specific materials and methods of teaching vocational courses. Deals with both the theoretical and practical aspects.

Three credit hours

## VE 250 Shop Organization and Management

Basic principles of planning, organizing and managing an industrial or technical shop or laboratory. Selection and arrangement of equipment including specification writing. Control of personnel for efficient shop management.

Three credit hours

## VE 315 Learning and Programmed Instruction

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

## VE 320 Coordination of Cooperative Education

The role of the coordinator in organizing and conducting a program of work-study experience in high school. Introduction to cooperative half-time training, community survey, advisory committees, laws and regulations; and examination of the responsibilities and activities of the coordinator.

Three credit hours

## VE 325 Conference Leading

A course in the philosophy and techniques of organizing and conducting successful conferences. Each participant will assume the responsibility of planning and leading a simulated conference.

Three credit hours

## VE 330 Principles and Practices of Vocational Guidance

Discussion and study with the intent to develop a better understanding of principles and objectives of Vocational Guidance.

Three credit hours

## VE 350 Philosophy of Vocational Education

A survey of the history and philosophy of vocational education in the United States with emphasis upon recent developments.

Three credit hours

## VE 411 Measurement and Evaluation

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.

Three credit hours

## VE 450 Local Administration and Supervision of Vocational Education

Procedure and practices utilized in establishing, promoting, coordinating, supervising, and controlling vocational programs on the local level.

Three credit hours

## VE 455 Development of Technical Education Programs

Planning and development of technical education programs including the determination of needs and organization of programs for secondary and post-secondary schools.

Three credit hours



# Mathematics

Professor Fish; Visiting Professor Eves; Associate Professor Estes; Assistant Professors MacDonald, Moulton, Mary Peabody, Soychak; Mr. Bradbard.

## Ms 100-101 Elements of Mathematics I and II

The Staff

A basic two course sequence of special interest to prospective primary and elementary teachers with major emphasis on an intuitive approach to the structure of the real number system. Other topics studied briefly are sets, logic, equations, inequalities, number theory, and the nature of proof. Ms 100 is a prerequisite for Ms 101.

Six credit hours (Three credits each semester)

## Ms 102-103 Elements of Mathematics

Mr. Soychak

Includes the traditional topics of freshman college mathematics: equations, scientific notation, fractions and operations, functions and graphs, systems of linear equations, quadratic equations, logarithms, trigonometric functions, and complex numbers. After the completion of each topic, applications are made in several fields. Ms 102 is a prerequisite for Ms 103.

Six credit hours (Three credits each semester)

## Ms 104-105 Mathematical Concepts I and II

Mr. Estes, Mr. MacDonald

Introductory courses for secondary and liberal arts students not majoring in mathematics, providing an overview of current uses of mathematics. Topics such as sets, logic, calculus, probability, statistics, linear algebra, linear programming, logarithms, exponentials, abstract systems, computers, and graphs may be covered. Ms 104 is a prerequisite for Ms 105.

Six credit hours (Three credits each semester)

## Ms 140 Pre-Calculus Mathematics

Mr. Moulton

Properties of real numbers, elementary analytic geometry and functions including the trigonometric, logarithmic, and exponential functions. The course is for people who wish to become mathematics majors, but lack the necessary high school background. It does not count for major credit unless approved by the department. This course may be taken concurrently with Ms 150.

Three credit hours

## Ms 150 Analytic Geometry and Calculus I

Mr. Estes, Mr. Soychak, Mr. Bradbard

Equations and graphs, differentiation and integration of polynomial functions; applications. Prerequisite: Ms 140 or equivalent.

Three credit hours

## Ms 151 Analytic Geometry and Calculus II

Mr. Estes, Mr. Soychak, Mr. Bradbard

Conic sections, differentiation and integration of algebraic, trigonometric, logarithmic, and exponential functions; applications. Prerequisite: Ms 150 or consent of instructor.

Three credit hours

## Ms 160 Basic Introduction to Computer Programming

Mr. Estes

Introduction to flow diagrams, FORTRAN or BASIC, Input-Output devices, operation of a terminal on an IBM 360 system, and programming. No mathematical prerequisite.

One credit hour

## Ms 220 Introduction to Statistics

Mr. Fish

Elementary statistics to provide sufficient terminology and technique for interpreting critically the statistical content in various fields and for performing fundamental statistical procedures.

Three credit hours

## Ms 230 Topics in the History of Mathematics for Elementary Teachers

Mr. Eves

An introduction to the history of mathematics with emphasis upon the history of arithmetic and elementary algebra, geometry, and number theory. The development of the symbolism and the language of elementary mathematics will be included. Prerequisite: Ms 100 or permission of instructor.

Three credit hours

## Ms 250 Analytic Geometry and Calculus III

Mr. Moulton

Polar coordinates, geometry of three dimensions, infinite series, partial differentiation; applications. Prerequisite: Ms 151.

Three credit hours



**Ms 251 Analytic Geometry and Calculus IV** Mr. Moulton  
Multiple integrals in two and three dimensions and an introduction to ordinary differential equations, applications. Prerequisite: Ms 250.

Three credit hours

**Ms 260-261 Probability and Statistics I and II** Mr. Fish  
A two-semester sequence in probability and statistics including such topics as the normal, binomial, poisson, chi-square, and F distributions. Also regression, correlation, and other applications.

Six credit hours (Three each semester)

**Ms 270-271 Foundations I and II** Mr. Bradbard  
Symbolic logic and the nature of proof, set theory, a rigorous construction of the real number system, and other topics such as transfinite numbers, well ordering, and equivalent statements of the axiom of choice. Prerequisite: Ms 150-151 or concurrent.

Six credit hours (Three each semester)

**Ms 310 Basic Concepts of Algebra** Miss Mary Peabody  
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: Math 100 and 101.

Three credit hours

**Ms 311 Informal Geometry** Miss Mary Peabody  
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: Math 100 and 101.

Three credit hours

**Ms 350 Differential Equations** Mr. Estes  
A first course in the theory of differential equations, elementary methods of solutions, physical applications, power series, and other topics. Prerequisite: Ms 250 or concurrent.

Three credit hours

**Ms 351 Vector Analysis**  
An introduction to the theory and applications of vectors including the algebra, calculus, and geometry of vectors. Prerequisite: Ms 250.

Three credit hours

**Ms 360 Computer Programming** Mr. Estes  
A study of programming in the FORTRAN language with emphasis on the solution of the problems using logic and flow diagrams. Other programming languages will be discussed by analogy. Students will learn to operate the computer, to run their programs on the computer, and should expect to spend several hours per week at the computer center. Prerequisites: Calculus and Statistics or permission of the instructor.

Three credit hours



**Ms 361 Numerical Analysis**

Mr. Estes

Finite difference, interpolation formulae and integration with emphasis on numerical methods for computer usage. Prerequisite: Ms 360 or permission of instructor.

Three credit hours

**Ms 370 Linear Algebra**

Mr. MacDonald

An introduction to matrices and their applications in solving systems of linear equations. Vector spaces and matrix Algebra.

Three credit hours

**Ms 371 Abstract Algebra**

Mr. MacDonald

A course developed around the following topics: notions of set theory, theorems on groups, rings, fields, structure of homomorphisms, linear equations, and the integral domain of polynomials over a particular field.

Three credit hours

**Ms 380 History of Mathematics**

Mr. Eves

A foundational development of the growth of mathematical ideas, including those of more recent times. Prerequisite: Ms 151 or consent of instructor.

Three credit hours

**Ms 381 Theory of Numbers**

Mr. Eves

Basic course in number theory, including such topics as divisibility properties of integers, prime numbers, congruences, and multiplicative number theoretic functions.

Three credit hours

**Ms 390-391 Geometric Structures I and II**

Mr. Eves

An introduction to the geometries that result from various postulate systems, such as the Euclidean, affine, non-Euclidean, and projective. Math 390 is a prerequisite for Math 391.

Six credit hours (Three each semester)

**Ms 450 Advanced Calculus**

Mr. MacDonald

Fundamental notions of limits, continuity, differentiation, and integration; for functions of one or more variables. In addition, convergence and uniform convergence of infinite series and improper integrals. Prerequisite: Ms 250.

Three credit hours

**Ms 451 Complex Variables**

An introduction to complex variables, analytic functions, integration, series, mappings, and the calculus of residues. Prerequisite: Ms 250.

Three credit hours

**Ms 488 Mathematical Problem Solving Techniques**

Mr. 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 489 Seminar in Mathematical Problem Solving Research**

Mr. 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 388 and Statistics or permission of the instructor.

Three credit hours

**Ms 490 Non-Euclidean Geometry**

Mr. Moulton

Historical background of Non-Euclidean Geometry and a deductive development of one or more non-Euclidean geometries with emphasis on the effect changes in postulates have on a given geometry. Prerequisite: Ms 250 or permission of instructor.

Three credit hours

**Ms 491 Topology**

Mr. MacDonald

Elementary general topology, including topological spaces, mappings, compactness, nets, and product; metric, function, and Peano spaces. Prerequisite: Ms 250.

Three credit hours

**Ms 499 Independent Study in Mathematics**

The 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.

One to three credit hours

**Ms Ed 312 Teaching Mathematics in the Secondary School**

Miss Mary Peabody

Teaching mathematics with the new approach at the secondary school level. Programs for teaching both the slow and advanced pupil. Study of current textbooks and experimental material in modern mathematics. Content as needed to provide orientation to topics commonly taught in grades 7 through 12.

Three credit hours



## Music

Professor Bowder; Associate Professors Campbell, Chamberland; Assistant Professors Cole, Heel.

### **FA 101 Music Appreciation and History**

Mr. Chamberland, Mr. Cole

A survey of music from the Gregorian Chant to modern times, covering musical practices of the Renaissance, Baroque, Classical, Romantic, and Contemporary periods. Representative works by the outstanding composers of each period.

Three credit hours

### **FA 201 Fundamentals of Music**

Mr. Cole

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

Two credit hours

### **Mus 100 History of Music I**

Mr. 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 101 History of Music II**

Mr. Chamberland

Baroque Period: continuation of Mus 100, 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



## CORHAM

### Mus 102 Theory I

Mr. 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 103 Theory II

Mr. Bowder

Triads in first and second inversion; specific uses of the six-four chord; secondary triads in fundamental position and inversion; modulation; non-harmonic tones (passing, auxiliary, appoggiatura, suspension, and anticipation); dominant seventh chord (root position inversion, regular and irregular resolutions); related dictation and keyboard application. Prerequisite: Mus 102.

Three credit hours

### Mus 104, 105, 206, 207, 306, 307, 402 Applied Music

The Staff

May be taken in piano, voice, or any orchestra or band instrument. One lesson per week in the major performance area (3 credits). Also one half-hour lesson in the minor performance area (1 credit) in fulfillment of applied music requirements. Special fee.

Four credit hours

### Mus 106, 208, 308 Instrumental Ensemble

Mr. 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.

One-half credit hour

### Mus 107, 209, 309, 403 Vocal Ensemble

Mr. Chamberland

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 108, 109, 210, 211, 310, 311, 404 Recital Class

Mr. Chamberland

Performance in major field, stage procedure, and evaluation of performances.

One-half credit hour

### Mus 200 History of Music III

Mr. Cole

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 201 History of Music IV

Mr. Cole

Contemporary Period: continuation of Mus 200, 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 202 Theory III

Mr. 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. Prerequisite: Mus 103.

Three credit hours

### Mus 203 Theory IV

Mr. Bowder

Contemporary techniques of composition; modern harmony, theory, and related studies. Two, three, and four part counterpoint and related forms of the eighteenth century. Prerequisite: Mus 202.

Three credit hours

### Mus 220 Class Piano

Mr. 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 sightreading.

Two credit hours



**Mus 250 Music in America**

Mr. 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. Prerequisite: FA 101 or permission of instructor.

Three credit hours

**Mus 302 Instrumental Conducting**

Mr. Bowder

Organization, training, and directing of bands and orchestras. Practical conducting experiences, score reading, basic beat patterns, and interpretation.

Two credit hours

**Mus 303 Vocal Conducting**

Mr. Chamberland

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 textual delivery.

Two credit hours

**Mus 400 Orchestration**

Mr. Bowder

A study of the nature of the various instruments. Practice in scoring for instrumental combinations, orchestra, and band.

Three credit hours

**Mus 499 Independent Study in Music**

The 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.

One to three credit hours

**Mus 501 Concert Band**

Mr. Bowder

no credit



## CORHAM

Mus 505	The Gorham Chorale	Mr. Chamberland no credit
Mus 509	A Cappella Choir	Mr. Cole no credit
Mus 510	Chamber Orchestra	Mr. Bowder no credit
Mus 511	The Chamber Singers	Mr. Chamberland no credit
Mus 513	Brass Ensemble	Mr. Cole no credit
Mus Ed 200	Woodwind Class	Mr. Bowder
Methods of teaching woodwind instruments; practical experience on various woodwinds; and elements of transposition.		Two credit hours
Mus Ed 201	Brass Class	Mr. Bowder
Methods of teaching brass instruments; practical experience on various brasses; and elements of transposition.		Two credit hours
Mus Ed 300	Elementary Music Methods and Materials	Miss Heel
Study of approved methods and materials of music education in the elementary school. Discussion and actual teaching in the classroom.		Three credit hours
Mus Ed 301	Secondary Music Methods and Materials	Miss Heel
Study of approved methods and materials of music education in junior and senior high schools. Continuation of Mus Ed 300.		Three credit hours
Mus Ed 302	String Class	Miss Heel
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
Mus Ed 303	String Class	Miss Heel
String ensemble methods and materials for beginning strings. Fundamentals of viola, cello, and string bass. Rudiments of fingering, bowing, and tone production.		Two credit hours
Mus Ed 320	Rhythmic Activities in the Elementary School	Miss Heel
This course follows the sequence of rhythmic activities from the basic fundamental movements of the primary grades to the more intricate patterns of instruments and folk dancing used in upper elementary. Stresses active participation in games, dances, and creative phases. Previous music experience not necessary.		Two credit hours
Mus Ed 400	Music Administration and Supervision	Miss Heel
Designed to present an integrated picture of philosophies of administration, and to resolve problems encountered in student teaching. Also to present new viewpoints based on discussion of text and individual problems.		Three credit hours

## Philosophy

### Pl 100 Introduction to Philosophy

This course introduces some of the enduring questions that have concerned the mind and conscience of man in his abiding quest for understanding. Philosophy is viewed as an activity by which man seeks to understand the nature of his relationships with the universe, humanity, and self. The major areas of philosophic concern such as existence, knowledge, and values will be developed within the context of selected problems. Required of Liberal Arts majors.

Three credit hours



## Sciences

Professors Kerr, Neuberger; Associate Professors Barker, Grass, Hare, Miller, Riciputi, Schwinck, M. Whitten; Assistant Professors Ayers, Dorsey, Pendleton.

### Sci 100-101 Physical Science

Mr. Hare, Mr. Pendleton

A two-semester course designed to educate non-scientists in the principles and methods of physical science. Selected topics in physics, chemistry, geology, meteorology, and astronomy. Basic principles and concepts covering conservation of charge, energy, mass and momentum, fields (electrical, gravitational, and magnetic), waves, the molecular structure of matter, and atomic structure. Related fundamentals of chemistry are considered; introduction to organic chemistry, with particular emphasis on the electronic nature of chemical phenomena. Geology, meteorology, and astronomy are also studied as interrelated disciplines. Laboratory experimentation stresses importance of first-hand experience in substantiating physical principles. Four class-hours weekly; two hours of lecture and two of laboratory.

Six credit hours (Three credits each semester)

### Sci 100a Concepts of Physical Science

Mr. Grass, Mr. Maurice Whitten, Mr. Ayers

A one-semester course for art, music, and industrial arts majors. Aims at developing the basic content of the major scientific disciplines together with their underlying physical principles: astronomy (concepts of space); geology (concepts of time and change); chemistry (concepts of matter); physics (concepts of energy and its transformations). Consideration also given to the methods of science and to the impact of science on society.

Three credit hours



## GORHAM

### Sci 110 General Botany

Mr. Barker

A basic course dealing with selected vascular and non-vascular plants. Fundamental biological concepts are related to plants with particular consideration to structure and function, life cycles, and ecology. Two one-hour lectures and two two-hour labs.

Four credit hours

### Sci 111 General Zoology

Mr. Riciputi

An introductory course treating the major animal phyla from the protozoons to the chordates, with emphasis on structural and functional adaptations, and principles of ecology. Two one-hour lectures and two two-hour labs.

Four credit hours

### Sci 120-121 General Chemistry I and II

Mr. Maurice 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. Three hours of lecture and one three-hour laboratory per week.

Eight credit hours (Four each semester)

### Sci 150-151 Earth Science

Mr. Hare

A survey course including material selected from the areas of astronomy, geology, meteorology, and oceanography. In addition to field trips, the laboratory sessions involve a study of minerals, rocks, soils, topographic maps, and weather maps.

Two one-hour lectures and one two-hour lab.

Six credit hours

### Sci 156 Physical Geology

Mr. Miller

The study and observation of the earth through the interpretation of the work of streams, glaciers, volcanoes, and other geological agents. The identification of rocks and minerals is included.

Three credit hours

### Sci 157 Historical Geology

Mr. Miller

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

### Sci 161-162 Physics I and II

Mr. 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.

Eight credit hours (Four each semester)

### Sci 200 Biological Science

The Staff

An introductory, one-semester, biology course in which the major concepts discussed include: evolution, heredity, energy transformation, development, ecology, and the dynamics of animal and plant function. Three hours of lecture and one three-hour lab weekly. Prerequisite: Sci 100-101, or 100a.

Four credit hours

### Sci 250 Vascular Botany

Mr. Barker

A study of the major groups of vascular plants with emphasis on morphology, life cycles, and ecology. Plants of Maine are collected on field trips and used in the study of taxonomy. Prerequisite: Sci 110.

Four credit hours

### Sci 251 Non-vascular Botany

Mr. Barker

A study of the major groups of non-vascular plants with emphasis on morphology, life cycles, and ecology. Algae and fungi are collected on field trips and used in the study of taxonomy. Prerequisite: Sci, 110.

Four credit hours

### Sci 252 Invertebrate Zoology

Mr. Riciputi

A survey of the invertebrates with emphasis on morphology and relationships of representative types. Open to qualified freshmen and sophomores or with instructor's permission.

Four credit hours

**Sci 253 Vertebrate Zoology**

Mr. Riciputi

The form, structure, and life processes of the major groups of vertebrates. The areas are considered in respect to the animal's adaptation to his environment. Field trips are taken to various habitats which afford first-hand ecological observations and also supply living material for laboratory investigation. Open to qualified freshmen and sophomores or with instructor's permission.

Four credit hours

**Sci 258 Ecology**

Mr. Miller

Basic relationships of plants and animals to their physical and biotic environments. The study of biomes, habitats, and communities are interpreted in varying stages of succession and stratification. An emphasis is placed on species dynamics and population changes.

Three credit hours

**Sci 259 Conservation of Natural Resources**

Mr. Miller

The study of the better-known practices for the utilization of our natural resources. Topics covered in the course include mineral resources, soils, forests, water, wild life, man himself, and recreation.

Three credit hours

**Sci 355 Natural Science**

Mr. Barker

A course primarily for teachers in the elementary school. 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, man, and related subjects. Emphasis is on obtaining an understanding and appreciation of the flora and fauna of New England.

Three credit hours

**Sci 360 Structural Geology**

Mr. Miller

This course is a study of rock structure and deformation. Much time is spent in field research, geologic mapping, and bedrock interpretation. Some study of mineral resource locations included. It is recommended that a student have had physical or historical geology as a prerequisite.

Two one-hour lectures and one two-hour lab.

Three credit hours

**Sci 361 Introduction to Oceanography**

Mr. Hare

Origin and extent of the oceans; nature of the sea bottom, causes and effects of current and tide; animal and plant life in the sea.

Three credit hours

**Sci 363 Astronomy**

Mr. Ayers

A course largely descriptive and non-mathematical in nature which includes 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

**Sci 366 History of Science**

Mr. Maurice 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: Sci 100-101, Sci 200, and six additional hours of science.

Three credit hours

**Sci 367 Anatomy and Physiology**

Mr. Neuberger

A study of the relationships between structure and function of the human organism with emphasis on the following systems: muscular, nervous, circulatory, respiratory, excretory, endocrine, and reproductive.

Three credit hours

**Sci 368 Meteorology**

Mr. 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



## GORHAM

### Sci 369 Microbiology

Mr. Dorsey

A study of the anatomy and physiology of microorganisms. The use and experience of microtechniques are important parts of the course.

Four credit hours

### Sci 370 Ornithology

Mr. Riciputi

The basic biology of birds, their life history, migration, and economic importance with special reference to those of eastern North America. (Students must supply own binoculars, spotting scopes, etc.)

Three credit hours

### Sci 372 Ichthyology

Mr. Riciputi

The structure, origin, evolution, natural history, classification, and zoogeography of fishes, with particular emphasis on species found in the northeastern United States. Prerequisite: Sci 253.

Four credit hours

### Sci 373 Mineralogy

Mr. Miller

An introduction to descriptive crystallography and 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.

Three credit hours

### Sci 380 Organic Chemistry

Mr. Maurice Whitten

A systematic study of the nomenclature, classification, preparation, structure, properties, and uses of aliphatic and aromatic compounds. Three hours of lecture and one four-hour laboratory per week. Prerequisite: Sci 121-122 with a minimum grade of C.

Four credit hours

### Sci 381 Introduction to Biochemistry

Miss Schwinck

Chemistry of biologically important molecules including carbohydrates, proteins, lipids and nucleic acids, and the principles of the main metabolic pathways in living systems. Prerequisite: Sci 111, Sci 110, and Sci 120-121 or Sci 200 with grade of B as minimum. Three one-hour lectures and one three-hour laboratory.

Four credit hours

### Sci 382 Advanced Physics Laboratory

Mr. Grass

A laboratory research investigation of an approved topic in physics using the facilities of the College laboratories and/or those of industrial and professional laboratories.

Three credit hours

### Sci 385 Cell Biology

Miss Schwinck

Structure and function of cells on the cellular, subcellular, and molecular levels. Offered in alternating years only. Prerequisite: Sci 381.

Three credit hours

### Sci 400 Biological Techniques

Mr. Dorsey

A pragmatic approach to laboratory procedure in the biological sciences. Typical of the areas in which the student will develop skill are the following: instrumentation, bacteriology, embryology, chromatography, and techniques of preserving and maintaining plants and animals. Two two-hour classes.

Three credit hours

### Sci 410 Plant Physiology

Miss Schwinck

A study of the physiological activities of plants and their growth and development as influenced by internal and external factors. Offered in alternating years only. Prerequisites: Sci 110 and Sci 381.

Three credit hours

### Sci 420 Embryology

Mr. Neuberger

A study of animal development emerging from an analysis of cell division, gametogenesis, organogenesis, growth, and differentiation.

Two hours of lecture and four of laboratory.

Four credit hours

### Sci 450 Genetics

Mr. Neuberger

A study of the principles of heredity in plants and animals with emphasis upon recent gene and chromosome research.

Three credit hours



Bailey Hall Classroom Wing

**Sci 455 Modern Physics**

Mr. Grass

Selected topics in modern physics, atomic structure, spectra, relativity, the de Broglie model, the quantum-mechanical model, radioactivity, particle accelerators. Prerequisites: Physics I and II and Math 251, or permission of instructor.

Three one-hour lectures and two three-hour labs.

Four credit hours

**Sci 499 Independent Study in the Sciences**

The 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.

One to three credit hours

**Sci Ed 360 Teaching Sciences in the Secondary School**

Mrs. Kerr

Reading, discussions, experimentation, field trips, and audio-visual techniques are presented and evaluated as an integral part of this course. Emphasis is placed on concept formation in science consistent with programs now being taught nationwide.

Three credit hours

**Sci Ed 361 Teaching Biology in the Secondary School**

Mr. 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

**Conservation Workshop**

Through the joint sponsorship of the Gorham, Farmington, and Orono Campuses of the University of Maine, the State Natural Resources Agencies, and the State Department of Education, a Conservation Workshop is conducted each summer at Bryant Pond, Maine.

Courses in conservation education, the natural history of inland Maine, and other special topics are given by the Gorham faculty over a period of approximately eight weeks, in three sessions of three weeks each.

Graduate and undergraduate credit for Workshop courses is offered to all matriculated students. A free descriptive brochure giving detailed information is available from Gorham or Bryant Pond on request.





## Social Sciences

Professors Emerson, Lacognata, York, Young; Associate Professors Bibber, Dickey, Schleh, J. Whitten, Wood; Assistant Professors French, Hodges, Ventresco, Witherill; Mr. Seiler, Miss Waterhouse.

### SS 100 Western Civilization I

Mr. Ventresco

An introduction to the intellectual and political heritage of Western man from prehistoric times to the Glorious Revolution and the Age of Louis XIV (1715). 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

### SS 101 Western Civilization II

Mrs. Young, Miss Dickey, Mr. Schleh, Mr. Ventresco

A continuation of SS 100. Includes the period from the late seventeenth century to recent times. The course deals with major political, intellectual, social, and economic developments. It considers international relations and contacts with non-Western civilizations as well as the history of the leading states.

Three credit hours

### SS 200 United States History to 1877

Mr. Emerson, Miss Bibber, Miss Wood

A basic survey and introduction to the field of American history. The political, social, and economic development of the United States from 1789 to 1877.

Three credit hours

### SS 201 United States History since 1877

Mr. Emerson, Miss Bibber, Miss Wood

This course is a continuation of SS 200. A survey of American political, social, and economic development since 1877.

Three credit hours

**SS 202 Principles of Geography**

Mr. 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/environment relationship from the point of view of the geographer. The course is a prerequisite for all advanced courses in geography.

Three credit hours

**SS 203 Sociology**

Mr. Lacognata, Miss Waterhouse

To familiarize students with scientific orientation to human social behavior. To develop greater social awareness of human social systems. Foci of course materials on basic concepts, methodology, and empirical findings.

Three credit hours

**SS 204 American Government**

Mr. Seiler

The theory, organization, and practice of American government, especially the relationships between the federate system and the state, the individual citizen, and foreign nations. Unifying concepts include the nature of political power, federalism, ideologies, the formation of democratic character, and the role of American government in the world community of nations. In all phases the approach is directed to government as a policy-related social science.

Three credit hours

**SS 220 Personal and Social Economics**

Mr. Witherill

A course designed to help students make decisions and judgments pertaining to personal finances. Material is studied showing how personal economic decisions relate to society and how government social programs affect the economic life of the individual. Topics studied include: Incomes and Occupations, Budgeting, Insurance, Social Security Programs, Investments, and Estate Planning. Junior or senior status or permission of instructor.

Three credit hours

**SS 300 Economics**

Mr. Witherill

A one-semester course designed to give a basic understanding of the economic system. Deals with the economy as a whole rather than with problems of the individual firm, and gives the student a basis for knowing how economic events affect the national economy. Topics covered include a study of the Economic System, Money and Banking, Production, Income, Employment, Economic Cycles, and International Trade.

Three credit hours

**SS 301 Maine History**

Mr. York

A survey of the state's political, social, and economic history from Colonial days to the present. Among topics covered are exploration and settlement, Indians and the wars, transportation, religion, Maine in America's wars, outstanding state personalities, and industrial development in the nineteenth and twentieth centuries.

Two credit hours

**SS 302 Current Economic Problems**

Mr. Witherill

An in-depth study and application of economic principles to some of the outstanding economic issues of society. These include poverty; the economics of pollution control; problems of the city — including transportation, metropolitan organization and finance; and problems of labor — such as automation and unemployment. Prerequisite: SS 300.

Three credit hours

**SS 350 World Geography**

Mr. 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 his manner of occupation. Environmental quality, perception of environment, the dynamics of process, and new methods in the teaching of geography are among the areas receiving special emphasis. Prerequisite: SS 202.

Three credit hours

**SS 351 Geography of Asia**

Mr. 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: SS 202.

Three credit hours

**SS 352 Geography of Latin America**

An intensive study of the countries and major islands south of the Rio Grande. Sustained attention is given to the economic and political relations of Latin America with the United States. Focus also on Latin American culture. Prerequisite: SS 202.

Three credit hours



## GORHAM

### SS 353 Geography of North America

Mr. 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: SS 202.

Three credit hours

### SS 354 Diplomatic History of the United States I

Miss Wood

The course covers the development of key United States foreign policies from the Revolution to the Spanish American War. Prerequisite: SS 200.

Three credit hours

### SS 355 Diplomatic History of the United States II

Miss Wood

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 commitment in Asia. Prerequisite: SS 201.

Three credit hours

### SS 356 History of Russia

Mrs. Young

Political, social, cultural, and economic history of the Russian people, with emphasis on the period since 1825. The first half of the course surveys geographic backgrounds, the influence of Byzantine civilization, the impact of invasions, and the development of Russia's unique social, cultural, and political institutions. Remainder of course is devoted to the pressures for reform and weaknesses in imperial Russia, the Communist Revolution, and the history of the Communist state since 1917. Prerequisite: SS 101 or equivalent.

Three credit hours

### SS 357 History of the West

Miss Wood

The advance of the American frontier from the Atlantic seaboard to the last frontier on the Great Plains, with special emphasis on adaptations to the challenges of environment. There is some consideration of social developments. Changes in transportation and shifts in government policy affecting the movement West are considered. Prerequisite: SS 200 or SS 201.

Three credit hours

### SS 358 The Bible

Miss Dickey

An introductory study of portions of both the Old and the New Testaments. Exploration of historical background, literary qualities, authorship, and materials available for scholarly study is made. Not open to Freshmen.

Three credit hours

### SS 363 Twentieth Century United States

Mr. Emerson

A course devoting approximately equal time to an examination of the interwar period, 1919-1941, and the years since 1945, built around the theme of American efforts to adjust to an increasingly urban, industrial, technological, and affluent society. Although the emphasis is on domestic affairs, the implications of Cold War defense and foreign policies will be considered. Prerequisite: SS 201 or permission of the instructor.

Three credit hours

### SS 364 Civil War and Reconstruction

Mr. Emerson

An examination of the period 1850-1877 dealing with the background and causation of the war; Lincoln and the secession crisis; the military, economic, diplomatic, and political aspects of the Civil War and the reconstruction efforts after 1865. Particular emphasis will be placed on the nature of the Ante-Bellum South. Prerequisite: SS 200 or permission of the instructor.

Three credit hours

### SS 365 Social and Cultural History of the United States to 1865

Mr. Emerson

The development of American social life and culture as revealed in literature, philosophy, science, art and architecture, economic growth, and political thought. Particular emphasis will be given to the development of institutions and the history of ideas. Prerequisite: SS 200 or permission of the instructor.

Three credit hours

### SS 366 Social and Cultural History of the United States since 1865

Mr. Emerson

Similar in approach to SS 365 but may be taken independently of it. Prerequisites: SS 200, SS 201, or permission of the instructor.

Three credit hours

### SS 367 Colonial History of the United States

Miss Wood

The political, social, and economic development of the American colonies, from the days of exploration and settlement to the American Revolution. Changing British imperial policy and the causes of the American Revolution. Prerequisite: SS 200.

**SS 368 Seminar in American Character**

Mr. 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. Prerequisites: SS 200, SS 201, or permission of the instructor.

Three credit hours

**SS 369 The Negro in American History**

Mr. Emerson

A chronological survey of the role of the Negro in American life from the beginnings to the present with the major emphasis placed on the years since 1900. Among topics considered will be the origins and effects of slavery, the free Negro, segregation, racism, cultural and intellectual trends, and the continuing efforts of black Americans to find a place in white society. Prerequisites: SS 200, SS 201, or permission of the instructor.

Three credit hours

**SS 373 Introduction to African History to Partition**

Mr. 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

**SS 374 Introduction to African History Since Partition**

Mr. 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

**SS 375 Contemporary Africa**

Mr. Schleh

Seminar to examine major interdisciplinary elements in today's Africa including: social and cultural change, development and adaptation in African politics, economic development, race relations, and African international politics.

Three credit hours

**SS 376 The United States and Africa**

Mr. Schleh

A history of United States' interests in the relations with Africa from the early seventeenth century to the present. Areas covered include commerce, social and humanitarian contacts, Americans' roles in the exploration and exploitation of Africa, and diplomacy.

Three credit hours

**SS 380 Social Problems**

Mr. Lacognata

Analyses of student-selected contemporary social issues. Research reports employing library references required. Lectures will focus on theories of social problems and selected empirical studies. Prerequisite: SS 203.

Three credit hours

**SS 381 Minority Peoples**

Mr. Lacognata

Sociology of majority-minority relations in contemporary, particularly American, society. Attention is given to specific ethnic, religious, and racial minorities in terms of prejudice and discrimination. Prerequisite: SS 203 or permission of the instructor.

Three credit hours

**SS 383 Dynamics of Population**

Mr. Lacognata

The course contains general demographic theories, especially those concerning population growth. Population distribution and density, age and sex, and ethnic composition. Emphasis on fertility, mortality, and migration; and their influences on population change. Prerequisite: SS 203.

Three credit hours

**SS 384 Seminar in Social Thought**

Mr. Lacognata

Analyses of contemporary social issues, ideas, and attitudes characterizing American society. Independent library research projects to be emphasized in concert with seminar dialogues. Prerequisite: juniors and seniors only and by permission of instructor.

Three credit hours

**SS 385 Europe, 1500-1715**

Mr. 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: SS 100 or permission of the instructor.

Three credit hours



**SS 387 French Revolution and Napoleon**

Mrs. 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 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: SS 101 or equivalent.

Three credit hours

**SS 388 Europe and the World in the 19th Century**

Miss Dickey

An intensive survey of Europe's political changes, the growth of liberalism, the impact of nationalism, and the economic, social, and intellectual results of the Industrial Revolution. Expansion to the non-European world and its effects on Europe are studied. Prerequisite: SS 101 or equivalent.

Three credit hours

**SS 389 German History Since 1870**

Mrs. 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: SS 101 or equivalent.

Three credit hours

**SS 392 Twentieth Century Europe**

Mrs. 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 Fascism, Nazism, and Soviet Communism; and problems facing Europe in today's world are considered. Prerequisite: SS 101 or equivalent.

Three credit hours

**SS 394 History of Far East to 1700**

Miss Bibber

A survey of the history and culture of China and Japan from earliest times to 1700, with emphasis on the composition of "traditional" Japanese and Chinese society. Prerequisite: Six hours of history courses.

Three credit hours

**SS 395 History of the Far East Since 1700**

Miss Bibber

A study of China and Japan since 1700 emphasizing contrasting moves toward modernization in two traditional societies. Prerequisite: Six hours of history courses.

Three credit hours

**SS 396 Urban Geography**

Mr. 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: SS 202.

Three credit hours

**SS 397 The Local Environment**

Mr. French

A course emphasizing the use of tangible artifactual and contemporary "outdoor" evidence in the interpretation of areal development. The local community serves as the laboratory with special attention afforded its relation to the regional and larger scene. Prerequisites: SS 202 plus one other Geography course. Spring semester only.

Three credit hours

**SS 400 History of England**

Mr. 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. Prerequisites: SS 100, SS 101, or six hours of history.

Three credit hours

**SS 410 The United States and Asia**

Miss Bibber

A history of United States' interests in the Far East from 1789 to 1960, considering economic and social contacts as well as diplomatic. Prerequisites: SS 200-201.

Three credit hours

**SS 415 Viewpoints in American History**

Miss 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: Twelve hours of U.S. history.

Three credit hours

**SS 425 Canadian-American Relations**

Mr. James Whitten

This course is designed to explore the relationships with the nation most involved with the economy, security, and geography of the United States. The course is seminar type. Enrollment is limited. Prerequisites: SS 200, SS 201.

Three credit hours

**SS 450 Archaeology**

The study, preparation, and display of specimens; cataloging of archaeological materials. Emphasis on the history and techniques of excavation, the nature and description of sites, especially those excavated by the students during actual field work. The study of the classical ruins and cultures of antiquity. Research conducted on exhibited specimens in the museum and files of artifacts, slides, and published field reports of Gorham expeditions are utilized.

Three credit hours

**SS 451 Marriage**

Miss Waterhouse

The physical, social, psychological, and religious factors pertaining to marital adjustment are analyzed. Slides, lectures, medical school films, symposia, and discussions are utilized. Students are expected to become familiar with a wide variety of marriage literature through library reading.

Three credit hours

**SS 452 Sociology of Religion**

Miss Waterhouse

The course considers anthropological theories of the origin of religion. Religion is then studied functionally in primitive societies, in western history, and in contemporary society. Its effect on politics, economics, family life, and education is explored, and an assessment is made of the church's role in the future. Prerequisite: SS 203 or permission of instructor.

Three credit hours

**SS 453 Political Thought**

Mr. James Whitten

Introduction to classical political philosophy. Emphasis on the 19th- and 20th-century development of liberalism, democracy, social Darwinism, nationalism, socialism, and the total-state claims of fascism and communism. Prerequisite: SS 204.

Three credit hours

**SS 454 International Relations**

Mr. Seiler

Principles and practices involved in the transactions of governments, international organizations, groups, and peoples. The course stresses the agencies and policies that shape the destinies of commerce, diplomacy, power, sovereignty, war, and peace. Permission of instructor required.

**SS 455 Political Geography**

Mr. 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. SS 202 (Principles of Geography) is a prerequisite, and a general knowledge of current world conditions is desirable.

Three credit hours

**SS 456 Economic Geography**

Mr. 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: SS 202, or a basic course in economics.

Three credit hours

**SS 457 Anthropology**

A study of both the physical and cultural backgrounds of man, including comparative studies of characteristics of contemporary peoples. Students utilize extensively the collections in the museum. Laboratory work conducted. Aspects of culture are emphasized: art, music, religion, economics, and the mores.

Three credit hours

**SS 458 Modern European Governments**

Mr. Seiler

Emphasis on the current forms of government of the Soviet Union, West Germany, France, and the United Kingdom including consideration of twentieth century developments of these forms. Use of this knowledge in examining current domestic and foreign policies of these countries. Prerequisite: SS 101.

Three credit hours



## CORHAM

### **SS 459 Geography of Africa**

An intensive geographic study of the emergence of the nations of the once "Dark Continent" as well as the older, established powers such as South Africa, Egypt, and Ethiopia. Attention is given to areas still under colonialism. Prerequisite: SS 202.

Three credit hours

### **SS 460 History of Canada**

Mr. James Whitten

The course is concerned with the development of Canada as a settlement, a colony, and a nation. The significance of Canada as a nation and as a neighbor, its problems and prospects as a growing power are examined. Canada's cultural heritage sets the tone of the study. Prerequisite: SS 200.

Three credit hours

### **SS 475 United States Foreign Policy**

Mr. Seiler

A detailed evaluation of U.S. Foreign Policy focusing on such topics as: identification of U.S. Foreign Policy; governmental agencies and personalities in the formation and implementation of policy; the role of non-governmental influences. All aspects of course designed to evaluate current policy goals and practices in terms of long-range goals. Prerequisite: SS 204.

Three credit hours

### **SS 498 Historiography**

The 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. Required of and open to senior history majors only.

Three credit hours

### **SS 499 Independent Study in the Social Sciences**

The 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.

One to three credit hours

### **SS Ed 361 Teaching Social Studies in the Secondary School**

Mr. Cutzmer

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





## About the Portland Campus

### The History

The Portland campus, located at the junction of Routes 25 and 302, near the central section of the city, was first utilized for higher education in 1947, following the acquisition of a portion of the former Deering Estate by the trustees of Portland Junior College.

Once Portland Junior College was established on the location of the present Portland campus, it experienced rapid growth until the University of Maine, Portland, was established by an act of the Maine legislature in 1957 and the former property of Portland Junior College became part of the University of Maine. Luther I. Bonney, long-time Dean of Portland Junior College, remained as local administrator during the period of transition. The University of Maine trustees, at their meeting of December 2, 1958, appointed him Dean Emeritus, retroactive to July 1, 1957.

From 1957 to 1961, only the first two years of the academic program of the University's College of Arts and Sciences and College of Education were available at Portland, together with the freshman year of most of the other colleges. After Dean Bonney left, William L. Irvine, now President of Vermont College, served as Dean at the Portland campus. Payson Smith Hall was constructed during his administration.

In 1961, the merger of Portland University and the University of Maine was approved by the 100th Maine Legislature. Portland University had already established a baccalaureate program in Business Administration and a professional



## PORTLAND

School of Law. Following the merger, the latter program was developed into the University of Maine School of Law, currently housed 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.

The evening course programs in Business Administration which had been developed by Portland University were also brought to the Portland campus at this time and added to the University Extension courses which had been established for the in-service education of teachers. The Continuing Education Division was established in 1962.

From 1961 to 1965, William L. Whiting served as the administrative head of the full-time undergraduate student body at the Portland campus. During this period, Luther I. Bonney Hall and its attached library wing were constructed.

Dr. David R. Fink, Jr., became the Dean of the Portland campus in the fall of 1965. Under Dean Fink the programs of undergraduate and graduate study offered by the Portland campus expanded to encompass the wide variety of educational opportunities described in the next section under the heading, "Programs at the Portland Campus."

Dean Fink was promoted to Provost by the Board of Trustees in 1968 and remained in that position until he moved to the Chancellor's staff at the beginning of 1970. During his administration the new Gymnasium and the Science Building, including the Computer Center and the Southworth Planetarium, were constructed and put into service. Large parking areas were added to the campus, and several former dwellings close to the campus were purchased to house the Student Union, the Student Senate and Viking newspaper offices, the Public Information offices, the Plant Department, and various faculty offices.

When Dr. Fink moved to the Chancellor's staff, Dean Edward S. Godfrey of the School of Law served as Acting Provost of the Portland campus for the final semester prior to the administrative formation of the University of Maine at Portland-Corham during the summer of 1970.

## Programs of the Portland Campus

**Programs Leading to the Degree of Bachelor of Arts:** Complete four-year university programs are offered for students majoring in biology, economics, English, French, history, political science, mathematics, psychology, or sociology.

**Programs Leading to the Degree of Bachelor of Science in Education:** Complete four-year programs are offered for prospective secondary teachers who wish to be prepared to teach high school courses in English, French, mathematics, social studies, biology, or general science.

**Program Leading to the Degree of Bachelor of Science (with a Major in Nursing):** A four-year program that combines liberal arts and professional nursing education is offered by the School of Nursing. The first two years of the program consist largely of the general education courses that provide a foundation for the clinical courses of the junior and senior years.

**Programs Leading to the Degree of Bachelor of Science in Business Administration:** Complete four-year programs are offered for students majoring in accounting, economics, or business administration.

**Program Leading to the Degree of Associate in Business Administration:** This program requires two years for completion.

**Programs for Graduate Students:** Programs leading to the degrees of Master of Business Administration, Master of Education, Master of Engineering, and Master of Library Service are offered at the Portland campus. Credit in other graduate programs may also be pursued.

**Other Programs:** The first year in the engineering degree program is now available, and a second year is being developed. Students desiring to pursue other specialized programs which are not yet fully available at the Portland campus may find that at least the first year of required courses in such programs may be completed at the Portland campus.

**Continuing Education Division:** A great many undergraduate and graduate courses are offered on weekday evenings and Saturdays by the Continuing Education Division at the Portland campus. In addition to the courses offered at the campus, many other C.E.D. courses are offered at various other centers within commuting distance, as at Brunswick or Lewiston.

**Summer Sessions:** Students who wish to continue their studies during the summer months may enroll for a wide variety of courses. In addition to C.E.D. courses in the evening, many three-week and six-week courses at both undergraduate and graduate levels are offered during the daytime throughout the summer.

**Cooperative Extension Service and Other Public Services:** Offices of the Cumberland County Extension staff and certain other specialists of the Cooperative Extension Service are located on the campus. In addition to regular Extension programs, the Cooperative Extension Service sponsors a number of non-credit short courses and seminars. Portland campus students also call upon C.E.S. specialists to help in the planning of Freshman Orientation programs and community projects.

In addition to C.E.D. and C.E.S. programs already mentioned, specialized public services are also provided by the Portland campus offices of the C.E.D. Bureau of University-Community Service, the Bureau of Labor Education, and the Maine Technical Services. Faculty specialists in Social Welfare are also active in various urban community service projects.



### Divisional Organization

The faculty at the Portland campus is divided into five divisions:

**Business and Economics:** accounting, economics, finance, management, marketing, and subjects carried in the two-year business program.

**Humanities:** art, classics, modern languages, music, philosophy, and speech.

#### School of Nursing

**Science and Mathematics:** astronomy, the biological sciences, the earth sciences, the engineering sciences, chemistry, mathematics, physics, and psychology.

**Social Sciences:** education, history, physical education, political science, sociology, and social welfare.

This administrative innovation enables the student to recognize more fully the interrelationship of the various courses he studies. It also helps his instructors to keep in closer touch with the total learning experience of the individual student.

## Student Activities

Extracurricular activities form an important part of the educational experience of the students on every university campus. The Portland campus encourages every student to take advantage of the many opportunities to broaden intellectual horizons, to work together with other students on committees and other aspects of student government, and to participate in the campus clubs or other organizations which most appeal to the student's individual interests.

The Portland campus sponsors a number of cultural and social programs, including concerts, performances by visiting artists representing various aspects of the theatre or ballet, and lectures by writers or other exponents of the creative arts. There are also frequent dances, outings, athletic competitions, and other recreational and social events.

### Student Organizations

There are about thirty student organizations on the Portland campus which reflect the varied career, vocational, and avocational interests of the students. The Student Senate, the non-scholastic honor societies, the intercollegiate and intramural athletic programs, the Art Theatre, and the various student publications are described in some detail on the following pages. There are also numerous clubs and similar organizations whose activities are sufficiently described by a mere listing of their titles. Such organizations, among others, include:

Associated Women Students	Mathematics Club
Business Club	Outing Club
Circle K	Sailing Club
Circulo Espanol	Soccer Club
Forum Club	Surf Club
International Educational Club	Tau Epsilon Phi Fraternity
International Relations Club	Varsity Club
Inter-varsity Christian Fellowship	Young Democrats
Le Cercle Francais	Young Republicans

## Student Senate

Characteristic of all universities is the Student Government, which is entitled the Student Senate at the Portland campus. Here the form and direction of student life are shaped and all students are encouraged to participate. Regular Senate meetings are held every academic week throughout the year. Special meetings may be called by petition of five Senate members or at the discretion of the Senate President. Senate committees, including the Finance Committee, meet during the intervening week. Non-Senate members are welcome to work on Senate committees and/or student-faculty committees. Every student who is willing to serve in such ways should see the Senate President or leave a message at the Senate Office in the Student Union Annex concerning interest in appointment to specific committees.

Any candidate for Senate President, Vice-President, or Treasurer must be a junior or a senior during the term of office covered by the election, have an accumulative average of at least 2.0, and not be on probation at the time of the nomination. Fifty names are required to place a candidate's name on the ballot.

All Senate-sanctioned elections are decided by a plurality vote.

## Student Involvement in Institutional Governance

It has long been the philosophy of the Portland campus to have undergraduate students involved to a considerable extent in institutional governance. At the present, more than one hundred students serve as members of various committees. In some instances, as in the case of the Committee on Fraternal Organizations, they constitute a majority of the committee membership. All student committee members, with exception of those on the Commencement and Orientation Committees, are appointed by the Student Senate.

Currently there is a committee considering the formation of a single governing body for the Portland campus, comprised of students, faculty, and administration.

## Non-Scholastic Honor Societies

**Eagles:** The sophomore Eagles are women students who are dedicated to serve the Portland campus and who assist in many campus activities as guides and hostesses. They also act as "Big Sisters" to the incoming Freshmen women to help them become acquainted with the Portland campus and its traditions. Each spring a number of freshmen women are chosen to serve as Eagles during their sophomore year. An Eagle can be recognized by her white blouse, blue skirt, and a blue star worn over her right eye. This star symbolizes the five characteristics for which an Eagle is chosen: dignity, scholarship, character, friendliness, and dependability.

**Owls:** The Sophomore Owls are men who endeavor to assist incoming freshmen in adapting to college life and who serve in many other ways to promote the spirit and tradition of the Portland campus. Members are chosen from the freshman class in the spring. Their selection is based upon scholarship, character, and enthusiasm for campus activities. In addition to their responsibilities with the freshman class, the Owls provide guides for visitors to the campus, assist in the management of various activities, and provide helping hands whenever requested to do so. An Owl is identified by the black dot that is worn on the forehead.

**Centaurs:** Membership as a Centaur in the men's senior honorary society is determined by criteria established by the group. Basic guidelines include high quality of personal character, scholastic achievement, and significant and meaningful extracurricular participation. Students are tapped for membership in May, and the honor of membership in the group is left to the discretion of the current membership.



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### Intercollegiate Athletics

The Portland campus plays an independent athletic schedule and maintains numerous representative teams. Athletic activities are promoted in compliance with the eligibility rules of the Portland campus. Students who are amateurs engaging in athletics for their physical, mental, social, and educational benefits are invited by the coaches to participate in the following intercollegiate sports: Baseball, Basketball, Cross-country, Golf, Tennis, and Track.

### Intramural Athletics

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 college and university campuses.

A partial list of intramural sports at the Portland campus includes: Flag Football, Badminton, Squash, Basketball, Table Tennis, Softball, Volleyball, Handball, and Soccer.

Any student 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, 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, which is located in the gymnasium building.

### Student Publications

**The Activities Calendar:** Throughout the academic year, the Student Union Calendar Committee publishes a weekly calendar of all events of interest to students on the Portland campus. Students are urged to consult it and to assist in seeing that events are properly listed. Representatives of student organizations should see the director of the Student Union, for instructions on planning and scheduling events.

**The Viking:** A weekly student newspaper, known as the Viking, is a vital part of campus life. It is the only means of mass communication among the students and the administration, and it also reaches many members of the general public in the Greater Portland area. The latest information on campus happenings is presented, including coverage of sports and club and social activities. Lively editorials are balanced by letters to the editor which often present divergent points of view.

**The Yearbook:** Through the varied use of photography and art work, the campus yearbook is produced by the students to offer a chronicle of events to serve as a reminder of student life. Each edition is created for the particular year and group of students it serves.



### **The Art Theatre**

The Art Theatre at the Portland campus has developed into a significant campus and community activity. The plays are presented in an effort to produce contemporary experimental theatre in Portland. Past credits include production of plays by Eugene Ionesco, Harold Pinter, Edward Albee, Lewis John Carlino, Sean O'Casey, and Jean-Paul Sartre. An Italian Renaissance play by Niccolo Machiavelli has also been presented. The Art Theatre provides an excellent outlet for budding thespians. Tryouts are held several times during the year.

## **Buildings and Physical Facilities**

Only the buildings commonly used by the student population of the Portland campus are enumerated and described in the following listing. In addition to these named buildings, there are others, such as the central heating plant, a house used by the plant department, a residence occupied by the Dean of the School of Law, and other houses temporarily used for faculty and staff offices.

### **Principal Buildings**

**Luther I. Bonney Hall:** This five-story building, dedicated in honor of the Dean Emeritus of the Portland campus, gives direct access to the library wing as well as to Luther Bonney Auditorium and administrative offices. Luther Bonney Auditorium is a modern, air-conditioned lecture hall seating 250 persons. The upper floors of Bonney Hall contain faculty offices, classrooms and seminar rooms, and specialized quarters for audio-visual aids, choral groups, and art studios.



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**The Library Wing:** The two-story wing at the left of the main entrance of Bonney Hall houses the Portland campus library. As of June 30, 1970, the library collection contained 71,416 bound volumes, 7,310 reels of microfilm, approximately 2,000 microfiche cards, 5,205 government documents, and 359 phonograph records. The library was also receiving 1,017 periodical titles.

**Payson Smith Hall:** Named for a prominent Maine educator who had also served with distinction as Commissioner of Education for the Commonwealth of Massachusetts. The lower level contains a cafeteria, a more formal dining room, and a small seminar dining room. The main level contains offices for the Registrar, Bursar, Continuing Education Division, and a number of the student services, such as Financial Aid, Placement, Counseling and Testing, Admissions, etc. The other floors contain classrooms, laboratories, and faculty offices.

**Science Building:** The Southworth Planetarium is located on the lower level of the two-story wing of the Science Building, which was opened in 1969. Above the planetarium dome is the computer center. The main part of the Science Building, six stories high, has engineering rooms, offices, laboratories, seminar classrooms, and a greenhouse for plant specimens.

**The Gymnasium and Physical Education Building:** The physical education center, opened in 1969, provides facilities for a full range of physical education and athletic activities for all members of the Portland campus community. The main gymnasium can seat 2,800 spectators. The building 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 also on the lower level, housed in a wing behind the main building.

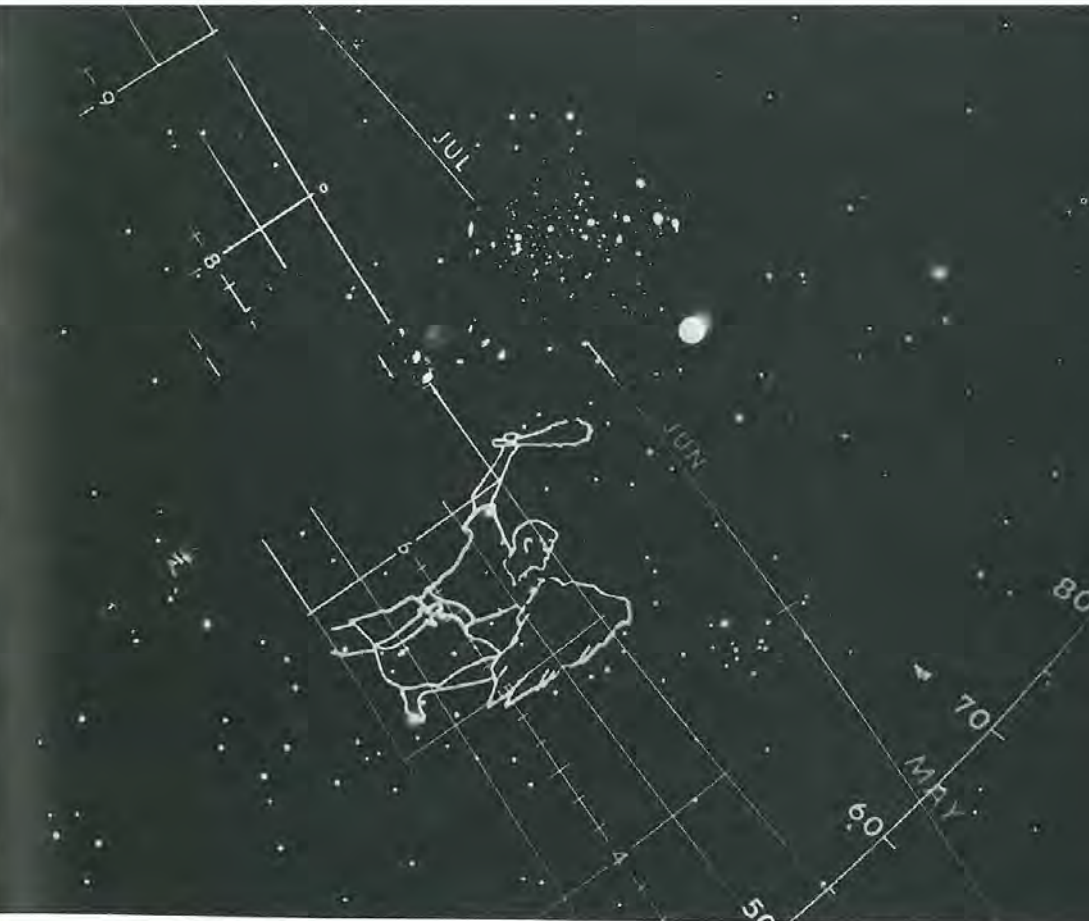
**Student Union and Annex:** Facilities for out-of-class activities and leisure moments on campus are provided by the Student Union at 92 Bedford Street and the Annex at 94 Bedford Street. The Union is staffed and equipped to meet a variety of student needs.

**University Bookstore:** A low white building between Payson Smith Hall and the Science Building houses the University Bookstore. Besides stocking all texts and stationery, drafting, and art supplies needed for the various courses, the University Bookstore carries many appropriate supplementary items, including several thousand titles in paperback books covering a wide variety of subjects.

**The Cape Cod:** Popularly known as the Cape Cod, the ancient farmhouse at the corner of Brighton Avenue and Falmouth Street, west of Payson Smith Hall, is preserved as an example of the domestic architecture of the period of the American Revolution. The oldest building in this part of Portland, it contains offices.

### Parking Facilities

The largest parking lots for student use are located off Bedford Street, east of the Student Union. Student parking is also permitted in certain other lots, primarily in the parts of the Falmouth Street lot nearer the Science Building and the Gymnasium. The portion of the Falmouth Street lot directly behind Bonney Hall and the Library Wing is normally reserved for faculty-staff parking. Movable signs mark the reserved portions. Permission to operate and park a vehicle on the campus is a privilege granted by the University. This requires that a vehicle be registered and display a campus decal, which may be obtained during the first three days of classes in September in Room 101, Payson Smith Hall, and at other times at the Plant Office. Material explaining rules and regulations will be issued along with the decals.



Sky Projection in the Southworth Planetarium.

## Academic Policies and Regulations

### Absences

Whenever, in the opinion of the instructor, a student's absences impair the quality of his work, the instructor shall report this fact to the Associate Dean.

### Change of College

A student who wishes to change from one college to another must follow this procedure:

1. Clear with the Director of Admissions as to the entrance requirement for the new college. A Change of College Card, obtained from the Admissions Office, must be signed by the Director.
2. Obtain signature of approval from the Associate Dean.
3. File the Change of College Card with the Registrar.

A change from one college to another within the University may result in a loss of degree credit hours.

Although he may apply in the spring, a freshman may not change colleges until the completion of the first academic year.



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### Change in Class Program

*Add-and-drop.* All changes in a student's class program must have the approval of the adviser and the Associate Dean. The card showing the change must be filed with the Registrar. A student is not allowed to add a new course after the regular add-and-drop period, which is for three days beginning the second day of each semester. During the first five weeks of the term a student may drop any course without having a grade recorded. From the end of the fifth week to the end of the tenth week, a student who is passing a course may drop it with no grade recorded. If he is failing in the course when he drops it, he will receive the grade of E. During the final five weeks, no student may drop a course without receiving an E, except by permission of the Associate Dean.

### Class Membership

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

The requirements by classes and colleges are:

College	Sophomore	Junior	Senior	Total required
Arts and Sciences	23	53	83	120
Business Administration	23	53	83	120
Two-Year Business	23			60
Education (through class 1970)	32	64	96	128
(Begin with class 1971)	30	60	90	120
Life Sciences and				
Agriculture	23	53	83	120
Agricultural Engineering	26	61	95	138
Forestry	27	62	97	141
Home Economics	23	53	83	120
Technology (depending on department)	23	53	83	120

### Dean's List

At the end of each semester, students with grade point averages of 3.0 or better are placed on the Dean's List.

### Dismissal and Suspension

Students may be dismissed or suspended from the University either by the Committee on Academic Standing or by the Disciplinary Committee.

The dismissal period is usually one year, the suspension period one semester or six months. During these periods registration is not permitted in any division of the University.

Academic dismissal or 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 advised to consult advisers to learn the standards that apply to them.

For details about Disciplinary suspension and dismissal, consult the Disciplinary Code.

## Examinations

Two to four preliminary examinations are usually administered in each course and count heavily on the final grade. Final examinations are held at the end of each semester according to a regular schedule. Finals cannot be taken before the regularly scheduled time.

*Absence from 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 Associate Dean. Courses not made up within the time limit are automatically marked as E.

Students who miss a final examination and are failing the course at the time may be given the grade of E instead of being marked Abs. for the semester grade.

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

## Grade Points

In determining the semester average, the letter grades are given the following arbitrary values: A-4, B-3, C-2, D-1, and E-0. The number of semester hours completed with a grade of A is multiplied by 4, B by 3, C by 2, and D by 1. These results are added and this grade point total is divided by the number of semester hours (including courses of E grade). The result is carried out two decimal places to produce the *semester average*.

After more than one semester, an *accumulative average* is similarly arrived at by dividing the total grade points by the total semester hours.

## Grade Reports

Progress reports are made to students and to parents of all Freshmen at the middle of each semester.

Regular grade reports are sent to all students and to all parents at the end of each semester. Please note that final grades cannot be secured in advance from the Registrar.

Parents are also notified when academic action is taken. All reporting to parents is omitted in the case of students who are over 20 or married.

## Grades

*System of Grading.* Ranks are reported 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; E, failure to meet the course objectives; Z, deficient; X, absent from the final examination.

Undergraduate students planning to do graduate work after receiving the baccalaureate degree should maintain a B average.

*Deficiencies.* Deficiencies may be made up during the semester immediately following, at the instructor's convenience. If not made up before the end of the semester, the grade will become an E, unless the time for making up the work has been extended by the Associate Dean.



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### **Graduation Requirements**

A candidate for a bachelor's degree must, (a) receive passing grades in all courses required by his major department; (b) accumulate the number of credit hours required by the school or college in which he is registered; (c) achieve an accumulative average of not less than 1.80 (in the College of Education 2.00).

### **Pass - Fail**

A student in any major who has completed 30 hours with an average of at least 2.0 is eligible to register for one elective course a semester under the pass-fail option. For this course, which cannot be in his major field, he will receive "Pass" or "Fail" rather than a letter grade. A maximum of 12 degree hours may be earned in this manner.

Since the "Pass" and "Fail" grades are not used in computing the grade point average, the pass-fail option allows students to explore areas of knowledge outside their major without endangering good academic standing.

Students should consult advisers for further details about this option.

### **Probation**

A student may be placed on academic probation by the Committee on Academic Standing if he is making unsatisfactory progress toward meeting graduation requirements. He is liable to be dismissed at the end of the following semester unless substantial progress is made. Since exact standards vary somewhat from college to college, students are urged to discuss with advisers or the Associate Dean the record they should maintain to avoid probation or dismissal.

A student may remove himself from probation through summer session courses if his courses have been approved in advance by his adviser and the Associate Dean.

### **Summer Session Credit**

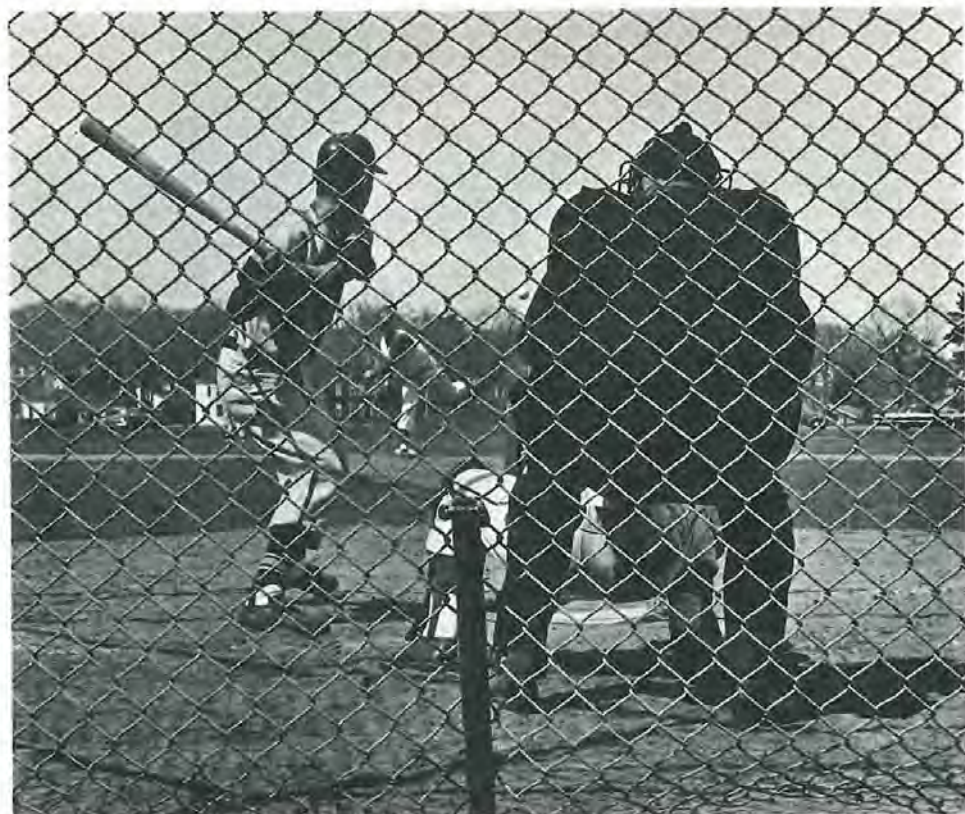
Students who contemplate taking summer session courses at any institution other than Maine for degree credit should secure the approval of their adviser and the Associate Dean in writing, in advance. A marked catalog of the institution should be left at the Dean's office with a note requesting credit for the courses selected.

### **Withdrawal**

The procedure for withdrawal from the University is to secure a Withdrawal slip from the Registrar's Office. The student then takes the slip for signature to the several campus offices concerned, finally returning it to the Registrar's Office for checking before leaving it at the Bursar's Office.

After the tenth week of classes, students will receive an E in any course being failed at the time of withdrawal, and they will not be eligible to return the following semester. Under special circumstances the Associate Dean may authorize grades of Z for courses being passed or WF for courses being failed at the time of withdrawal during the last five weeks.

Withdrawn students who wish to re-enter the University must apply to the Director of Admissions for re-admission.



### Required Physical Education

All freshmen and transfer students, both men and women, must satisfy the University's requirement of one year of Physical Education. Students who are restricted because of a physical disability will work with their instructor, according to the doctor's advice, in planning a program of adapted physical activity.

*Medical Examinations:* All students must submit a medical report to the University Health Center before registering for any physical education course or playing any varsity or intramural sport. This report must be submitted annually. The prescribed report form is available from the Health Center.

*Uniforms:* A standard class uniform must be purchased at the Bookstore and worn to all gym classes. Gym clothes and rubber soled sneakers must be worn when using the gymnasium, special exercise room, all-purpose room, squash or handball courts.



# Registration

## Address Changes

Each student is required to report his correct residence address at the time of registration or as soon thereafter as it is known. Any change of address must be immediately reported to the Registrar. **THIS ADDRESS MUST BE THE STUDENT'S ACTUAL PLACE OF RESIDENCE.** If the mailing address is different, it should be reported to the Registrar.

## Credit Hours

The usual range of credit hours for which students register is:

College	Degree-Hour Credit Range Per Semester	Degree Hours Required For Graduation
Arts and Sciences	5 courses*	120
Business Administration	14-18	120
Two-year Program	15	60
Education (Through Class of 1970)	14-18	128
(Beginning with Class of 1971)	12-16	120
Life Sciences and Agriculture	12-18	120
Except: Agricultural Engineering	14-20	138
and Forestry	14-20	141
Technology	14-22	138

\*The usual range, in terms of semester hours, will be 12-18.

Students on the Dean's List may register for two more hours than the maximum number shown above.

**NOTE:** Students admitted to five-year baccalaureate programs may register for 13 hours.

The minimum requirement does not apply to seniors for the semester immediately prior to graduation. Other exceptions may be made upon the recommendation of the department head or adviser with the approval of the Associate Dean.

*Selective Service:* A minimum of 12 semester hours is required for undergraduate certification to draft boards as "full-time." As well as being enrolled as full-time, students should be aware that they must be able to be certified as progressing normally from the freshman class to graduation.

## Over-Registration

Regulations pertaining to over-registration may be obtained from the Associate Dean.

## Fees

*Payment of tuition and other charges is required for registration.* However, the Trustees have approved an installment plan whereby, if payment of the entire amount due would create undue hardship or prevent a student's attendance

entirely, one half of the total semester bill may be paid at registration and one-sixth of the total bill on the first day of each of the succeeding three months. A fee of ten dollars is charged if registration occurs later than the designated dates.

### **ID Cards**

An official student identification card is issued without charge to each student. It permits admission to certain University events for regularly enrolled students. The ID Card should be carried at all times and presented upon request to proper authorities.

Loss of an ID Card should be reported promptly to the Registrar's Office. The charge for replacement is \$2.50. Only one replacement can be obtained each year. The ID Card should be turned in at the Registrar's Office upon withdrawal from the University.

Any attempted alteration or loaning or other misuse of an ID Card is subject to disciplinary action (See the Disciplinary Code).

### **Transcripts**

Students' official academic records are maintained in the Registrar's Office. Transcripts of these records are not furnished individuals, other institutions, or prospective employers without the consent of the student concerned. There is no charge for the first transcript requested by a student, whether as an undergraduate or as an alumnus, provided the request is made either while still attending the University or within five years of last attendance. Requests for transcripts may be made in the Registrar's Office. For each copy beyond the first, there is a charge of \$1.00 per transcript.

## **Other Policies**

### **Areas Open to Student Use**

Students may not have University keys in their possession except by special arrangement through the Director of Student Affairs. Activity areas may be open only from 8 A.M. to 10 P.M. The faculty adviser must be present at any activity before or after these hours.

### **Automobiles and Parking**

*General:* Permission to operate and park a vehicle on the campus is a privilege granted by the University. This requires that a vehicle be registered and display a University decal.

*Time and place of registration:* At the time of application for a University decal, State registration certificate, driver's license and evidence of automobile liability insurance must be presented. Evidence of insurance should identify the car covered and the name of the insurance company, the policy number and expiration date. For cars registered in states having compulsory insurance, evidence of extra-territorial coverage needs to be presented.

Students may register their vehicles the first three days of classes in September in Room 101, Payson Smith Hall. Students acquiring a vehicle after this must register it through the Plant Office.

Material explaining rules and regulations will be issued along with the decals.



### **Bulletin Boards and Posters**

Notices and posters may be placed only on bulletin boards provided for this purpose. To place a notice on the locked board in the lobby of Luther Bonney Hall, inquire at Room 115, Luther Bonney Hall. Notices for the locked board in Payson Smith Hall should be turned in to the Office of Student Affairs. For these locked boards notices may be no larger than 8½" x 11".

Special regulations, which allow the placing of posters in areas other than bulletin boards, are in force during elections and campaigns only. Copies of these rules are distributed to all candidates and campaign managers. Questions about poster displays may be referred to the Director of the Student Union.

### **Campus Businesses**

By action of the Board of Trustees every student or group of students desiring to engage in any business upon the campus must first secure a license giving the required permission. Application for license may be made in the office of the Acting Dean of Student Affairs.

Such student or group of students must assume complete responsibility for compliance with all federal, state, and local laws and regulations.

### **Dance Rules**

Informal Saturday night dances are held periodically through the year. These dances, which are held in the gymnasium, are open only to students currently enrolled in recognized colleges; and college ID cards must be presented when purchasing a ticket. Each person with an ID card may bring one guest upon first entering the dance. Tickets are sold in advance in the Student Union Office as well as at the door.

### **Eligibility**

The University requires that all students be academically eligible who represent it in any way in extra-curricular activities or in intercollegiate athletics. Students should consult with their organization adviser, athletic coach, or the Acting Dean of Student Affairs as to specific regulations or if they have questions.

### **Financial Regulations for Student Organizations**

There are specific policies governing the operation of student organizations. For information regarding the finances of student organizations, refer to the Handbook for Student Organization Officers and Advisers.

### **Free Speech and Assembly**

*Policy Statement:* In keeping with the purposes of the University of Maine, the only restrictions on the fundamental rights of free speech and of free assembly on the Portland Campus are those designed to protect the rights of others and to preserve that order which is necessary for the University to continue its functions as an institution of higher learning.

The entire outdoors of the Campus is open to any form of expression of opinion by students, faculty members, staff, and their invited guests; the only limitations being that normal University functions may not be disturbed and the free flow of traffic may not be disrupted.

Individuals or groups wishing to use outdoor facilities shall inform the Student Union of their plans. Inside facilities that are ordinarily used as meeting areas are also to be made available on a non-discriminatory basis; these shall also be scheduled through the Student Union.

*Review Board:* Since no policy statement can foresee all eventualities that might arise in connection with the rights to exercise freedom of speech and assembly as well as the University's efforts to preserve these rights, a Review Board for Free Speech and Assembly for the Portland Campus shall be established. This Board shall consist of six members; two faculty members, two students, and two administrative members. All members shall serve for two-year terms, except that for the first year one student member shall be a senior and the other a junior; one faculty and one administrative member shall be appointed for a two-year term, and one faculty and one administrative member for a one-year term. In subsequent years the Student Senate shall select each year a junior to serve for two years. Faculty representatives shall be selected by the Faculty Nominating Committee and administrative members shall be appointed by the Dean. No member of the Review Board shall serve concurrently on the Disciplinary Committee.

The functions of the Review Board shall be: (1) to advise those whose responsibilities concern implementation of the policy; (2) to serve as an advisory board for those who feel that by the establishment of prior restraints to free speech and assembly the spirit of this policy has been violated; and (3) to review cases of alleged improper use of and response to the right of free speech and assembly and to make recommendations to the appropriate individual or body. By keeping a record of its determinations and by reporting to the Faculty Government, the Review Board will serve as a source of guidance for the future.

### **Open Recruiting**

The University of Maine has adopted the following policy:  
Any legal organization offering career opportunities for University graduates should be granted the privilege of scheduling and holding student interviews on campus within the limits of available time and facilities and, when granted such privileges, should be considered authorized visitors to the University and entitled to the same rights and protections as are accorded to members of the University family under the provisions of the existing policy regarding free speech and assembly and the Disciplinary Code.

Students shall be allowed to exercise freedom of choice in scheduling and participating in authorized interviews.

### **Library**

*Hours:* During the Fall and Spring semesters the library is open Monday through Friday, 8:00 a.m. to 11:00 p.m.; Saturday, 8:00 a.m. to 5:00 p.m.; Sunday, 1:00 p.m. to 9:00 p.m. During vacation periods the hours are Monday through Friday, 8:00 a.m. to 5:00 p.m.

*Regulations:* 1. Books and other materials must be properly checked out at the Circulation Desk and returned before the expiration date. An ID card is required in each library transaction.





2. For the undergraduate, books from the general stack collection may be signed out for a two-week period with the privilege of one renewal. Periodicals generally are for use within the library. A fine of \$.05 per day is charged on overdue books.

3. Books placed on special closed reserve by the faculty for specific courses are shelved at the Circulation Desk. Closed Reserve books are for two-hour loan periods *within* the library, with an overnight signout after 9 p.m. to 9 a.m. the following morning. The fine system on Reserve Books is \$.50 for the first hour overdue or any portion thereof, and \$.25 for each succeeding hour. Overdue Reserve books on a one to eight day loan are fined \$.50 the first day, and \$.25 for each succeeding day.

4. Quiet must be maintained in all areas of the library at all times.

5. Smoking is permitted in designated areas.

6. All library materials are inspected by an attendant at the library exit.

### Lockers

Combinations for lockers will be issued on a first-come, first-served basis in Room 101, Payson Smith Hall, for the first three days of school. After this, they may be obtained at the Plant Office.

### Smoking

Students are asked not to smoke in classrooms, the auditorium, or the gymnasium. In other areas, cigarettes should be disposed of in containers provided.

# Financial Information

## STUDENT EXPENSES

The student expenses outlined in the following paragraphs are the anticipated charges for the academic year 1970-71. Changing costs may require an adjustment of these charges.

### Tuition and Fees for the Academic Year

Regular Students  
Tuition

Residents of  
Maine  
\$450

Non-Residents  
of Maine  
\$1,350

**Freshman Charges** — The following table shows the fixed charges for the fall semester for freshmen: (*Charges are billed one semester at a time.*)

	Residents of Maine	Non-Residents of Maine
Fall Semester Tuition	\$225	\$675
Matriculation Fee (See Below)	25	25
Health Insurance (Optional)	16	16
	<u>\$266</u>	<u>\$716</u>

**Matriculation Fee** — This fee of \$25 is required of all students registering for the first time who are candidates for a degree. It must be paid as part of the first term bill.

**Health Insurance** — The insurance is routinely charged to every fully enrolled student on the fall semester bill; if it is not desired the student must so notify the Treasurer's Office at the time of registration.

**Books and Supplies** — Textbooks, personal laboratory equipment, etc., are not furnished by the University and are estimated to cost from \$90 to \$160 per year.

**Board and Room** — Most students commute from their own homes, but some can obtain board and room at the Gorham Campus. See the Gorham Campus section of this catalog for details. Students enrolled in the School of Nursing may obtain rooms in Vaughan Hall through arrangements with the office of the School of Nursing.

**Miscellaneous** — A fee of \$10 is charged a student who registers after the prescribed day of registration.

Tuition fees for work taken in the Continuing Education Division are at the rate of \$22 per credit hour, except as indicated otherwise in the Continuing Education bulletin.

**Deposits** — A deposit of \$25 is due when the applicant is notified of acceptance by the Director of Admissions. If a dormitory room is required, an additional \$25 is due. These deposits will be applied toward the student's account when he registers. (They should not be confused with the matriculation fee of \$25, which is a non-refundable charge.)

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



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All 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 deducted from 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 August 1. If notice is not given by that date, the deposit will be forfeited.

**Payment of Bills** — All University bills, including those for rooms and board in University buildings, are due and payable on or before registration day for each semester. An academic year consists of two semesters, fall and spring.

**Installment Program** — Students whose circumstances are such that payments of their semester bill in full at the time of registration would work a real hardship will be permitted to use the following schedule:

Fall Semester	Spring Semester
$\frac{1}{2}$ the total semester charge at registration	$\frac{1}{2}$ the total semester charge at registration
$\frac{1}{2}$ the total semester charge on October 1	$\frac{1}{2}$ the total semester charge on March 1
$\frac{1}{2}$ the total semester charge on November 1	$\frac{1}{2}$ the total semester charge on April 1
$\frac{1}{2}$ the total semester charge on December 1	$\frac{1}{2}$ the total semester charge on May 1

This installment program is not available for charges totalling less than \$198 for the semester. The privilege of using this program will be withdrawn if payments are not made promptly as scheduled.

For the graduate students and students classified as "special," and for those registered for less than a normal program, the rate will be \$22 (\$50 for non-residents) per semester hour up to 10 semester hours. *Full tuition is charged all students registered for 10 or more semester hours.*

**Refunds** — Students leaving the University before the end of a semester will receive refunds correlated with the Installment Program. Tuition and room payment refunds will be paid as follows:

Fall Semester	Spring Semester
Withdrawal before	Withdrawal before
October 1 — $\frac{1}{2}$ of semester charge	March 1 — $\frac{1}{2}$ of semester charge
November 1 — $\frac{1}{2}$ of semester charge	April 1 — $\frac{1}{2}$ of semester charge
December 1 — $\frac{1}{2}$ of semester charge	May 1 — $\frac{1}{2}$ of semester charge

### Rules Governing Residence

A student is classified as a resident or a non-resident for tuition purposes at the time he is admitted to the University. The decision, to be made by the treasurer, is based upon information furnished by the student and any other relevant information. In general, in order to be considered eligible to register as a resident a student must have established a bona fide year-round residence in the State of Maine with the intention of continuing to maintain it indefinitely. The tuition status as determined at the time of enrollment normally prevails as long as the student remains in attendance. 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.

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

# Courses of Instruction at Portland

The following descriptions of academic programs and specific courses are arranged by the Divisional Organization:

- (1) Business and Economics: pages 126-142.
- (2) Humanities: pages 143-154.
- (3) School of Nursing: pages 155-157.
- (4) Science and Mathematics: pages 158-166.
- (5) Social Sciences: pages 167-181.

The Honors Program is described on page 182.

Information concerning the School of Law is on page 184.



## EXPLANATION OF CODING SYSTEM USED IN COURSE DESCRIPTIONS

When a dash is used between the two numbers (e.g., 1-2), both semesters must be taken to obtain credit; when a slant is used (e.g., 1/2), the first semester may be taken by itself, but the second cannot be taken unless the first is taken previously; when a period is used (e.g., 1.2), either semester may be taken for credit.

The following abbreviations are used: Fresh — freshmen; Soph — sophomores; Jrs — juniors; Srs — seniors; per — permission; Cr. — credit. Courses listed in parentheses will not be offered in 1970-71.



# Business and Economics

JOHN W. BAY, Chairman

Professors Durgin, Fitzpatrick, Siedlik, Waters; Associate Professors Bay, Findlay, Hall (Associate Degree Representative), Jagolinzer; Assistant Professors Andrews, Bien, McKeil, McMahon, Manck; Instructors Annett, Chandler, Emanuelson, Taylor, Van Amburg; Lecturer Plowman

## 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 his future education will build. Second, the student pursues a program of study designed to provide him with an understanding of the major functional areas common to most business operations and with 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, the legal environment of business, marketing, and general management. Third, the student undertakes to acquire a deeper knowledge of the major field he has selected. This is accomplished by taking 15 credit hours beyond the introductory course in the chosen field.

The undergraduate program in economics is designed to prepare students broadly for careers in the civil service, law, management, public affairs, labor relations, and citizenship. 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: micro economic analysis, money and banking, macro economic analysis, history of economic thought, comparative economic systems, public finance, and the social control of business.

### I. General Graduation Requirements

All students are required to complete 120 hours.

In addition, each student must accumulate a total of "grade points" equal to 1.8 times the number of credit hours in which he receives grades. This grade point average is computed by multiplying each credit hour by a letter grade factor in the following manner: A hours by 4, B hours by 3, C hours by 2, D hours by 1, and E hours by 0.

All course work taken in Business (Ba) and Economics (Ec) must be completed with at least a 2.0 (C) average for a student to be eligible for a degree.

## II. Requirements for a Bachelor of Science in Business Administration

### A. General Foundation Subjects (51 credits)

#### 1. Humanities and Fine Arts (21 credits)

- Eh 1 Freshman Composition
- Eh 9 Modern Literature
- Eh 19 Expository Writing
- Sh 1 Fundamentals of Public Speaking

One semester course selected from the following:

- At 1/2 Basic Drawing
- At 3.4 Principles of Art
- At 5.6 Art Appreciation and History
- At 7.8 Basic Design
- McH 1/2 History of Western Music
- McL 3/4 Vocal Literature
- Sh 11 Introduction to Theatre
- Sh 16 Play Production
- Sh 17 Fundamentals of Acting
- Sh 41 Fundamentals of Interpretation
- Sh 162 Theatre History

Two semester courses selected from the following:

- Eh 3.4 English Literature
- Eh 10 Modern Literature
- Eh 15.16 Masterpieces of English and American Literature
- Eh 43 American Literature
- Eh 55 Poetry of the Romantic Movement
- Cl 1.2 Greek & Latin Literature in English Translation
- Cp 191 Early 20th Century Drama of the Western World
- Cp 192 20th Century Drama of the Western World
- Pl 1.2 Philosophy and Modern Life
- Pl 135 Ethics

#### 2. Social Sciences (12 credits)

Two semester courses selected from the following:

- Ay 1/2 Introduction to Anthropology
- Hy 3/4 United States History
- Hy 3a/4a United States History
- Hy 5.6 History of Western Europe
- Hy 7.8 Asian History
- Pol 1/2 Introduction to Government
- Pol 21.22 Current World Problems
- Py 1/2 Introduction to Psychology
- Sy 3/4 Introduction to Sociology

Social Science electives — six hours

#### 3. Mathematics and Science (18 credits)

- Ms 13 Elementary Analysis
- Ms 14 Elementary Probability
- Ms 15 Analysis and Statistics
- Ms 16 Linear Systems

*(Continued on next page)*



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### II. A.3. *Mathematics and Science, Continued*

Two courses are to be selected from the following: one of these courses must be a laboratory science

#### Laboratory Science courses:

Ch 11/12	General Chemistry
Gy 1	Physical Geology
Gy 2	Historical Geology
Ps 1/2	General Physics
Ps 1a/2a	General Physics
Bt 1	General Botany
Zo 3	Animal Biology

#### Other:

As 9	Descriptive Astronomy
Gy 1a	Physical Geology
Gy 2a	Historical Geology
Ps 3	Descriptive Physics

#### 4. Physical Education — Two semesters required.

### B. Core Requirements in Business and Economics (33 credits)

Ec 1.2	Principles of Economics
Ec 168	Social Control of Business
Ba 9	Principles of Accounting I
Ba 10	Principles of Accounting II
Ba 23	Elements of Industrial Management
Ba 63	Marketing
Ba 130	Business Law
Ba 147	Business Data Processing*
Ba 149	Business Economics
Ba 151	Business Finance

\*Ms 169 or another course may be substituted for Ba 147. In that event, the student must complete three additional hours in a Ba elective.

### C. Major Field (15 credits)

#### 1. Accounting Major

Ba 41/42	Intermediate Accounting
Ba 143	Advanced Accounting
Ba 145	Cost Accounting
Ba 148	Auditing

#### 2. Business Administration Major

Ba 156	Investment Management
Ba 159	Business Management and Policy
Ba 170	Managerial Marketing
6 hours	Business or Economics Electives

### III. Requirements for a Bachelor of Science in Economics

#### A. General Foundation Subjects (48 credits)

##### 1. Humanities and Fine Arts (18 credits)

- Eh 1 Freshman Composition
- Eh 9 Modern Literature
- Sh 1 Fundamentals of Public Speaking

One semester course selected from the following:

- At 1/2 Basic Drawing
- At 3.4 Principles of Art
- At 5.6 Art Appreciation and History
- At 7.8 Basic Design
- McH 1/2 History of Western Music
- McL 3/4 Vocal Literature
- Sh 11 Introduction to Theatre
- Sh 16 Play Production
- Sh 17 Fundamentals of Acting
- Sh 41 Fundamentals of Interpretation
- Sh 162 Theatre History

Two semester courses selected from the following:

- Eh 3.4 English Literature
- Eh 10 Modern Literature
- Eh 15.16 Masterpieces of English and American Literature
- Eh 43 American Literature
- Eh 55 Poetry of the Romantic Movement
- Cl 1.2 Greek & Latin Literature in English Translation
- Cp 191 Early 20th Century Drama of the Western World
- Cp 192 20th Century Drama of the Western World
- Pl 1.2 Philosophy and Modern Life
- Pl 135 Ethics

##### 2. Social Sciences (12 credits)

Students must select at least 12 credit hours, including one full year course, from the following list. Students may not select more than six hours of history to fulfill the 12 hours minimal requirements.

- Ay 1/2 Introduction to Anthropology
- Hy 3/4 United States History
- Hy 3a/4a United States History
- Hy 5.6 History of Western Europe
- Hy 7.8 Asian History
- Pol 1/2 Introduction to Government
- Pol 21.22 Current World Problems
- Py 1/2 Introduction to Psychology
- Sy 3/4 Introduction to Sociology

*(Continued on the next page)*



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### III. A.3. Mathematics and Science (18 credits)

Ms 13	Elementary Analysis
Ms 14	Elementary Probability
Ms 15	Analysis and Statistics
Ms 16	Linear Systems

Two courses are to be selected from the following: one of these courses must be a laboratory science.

#### Laboratory Science courses:

Ch 11/12	General Chemistry
Gy 1	Physical Geology
Gy 2	Historical Geology
Ps 1/2	General Physics
Ps 1a/2a	General Physics
Bt 1	General Botany
Zo 3	Animal Biology

#### Other:

As 9	Descriptive Astronomy
Gy 1a	Physical Geology
Gy 2a	Historical Geology
Ps 3	Descriptive Physics

#### 4. Physical Education — Two semesters required.

### B. Course Requirements in Economics and Business (33 credits)

#### 1. Core Requirements:

Ec 1.2	Principles of Economics
Ec 132	Macro Economic Analysis
Ec 173	Micro Economic Analysis
Ba 9	Principles of Accounting I

2. Completion of at least 18 additional hours in economics (Ec) courses. However, no student will be granted degree credit for course work in business and economics in excess of 48 hours.

### C. Electives (39 credits)

## IV. Requirements for a Bachelor of Arts in Economics

Requirements for a bachelor of arts in economics are identical to those for a bachelor of science with the exception that the bachelor of arts student must complete, in addition, one year of intermediate level foreign language.

### GRADUATE PROGRAM IN BUSINESS ADMINISTRATION

A graduate program leading to the degree of master of business administration is available during the evenings at the Portland campus.

All applicants for the M.B.A. program must submit scores obtained on the Admission Test for Graduate Study in Business which is administered by the Education Testing Service, Princeton, New Jersey.

Candidates for the M.B.A. degree must complete a required core of 21 hours which consists of:

310. Management Policy
311. Managerial Economics
312. Managerial Accounting
313. Business Cycles and Forecasting
314. Financial Management
315. Marketing Management
316. Industrial Relations and Personnel Management

Nine hours of electives are required and must be selected from the following courses:

320. Market Research and Analysis
321. Human Relations in Industry
322. Operations Research
323. Production Management
324. Investment Management
325. Collective Bargaining
326. Organizational Behavior in Business
327. Business Logistics

Students who have had little or no undergraduate work in business and related subjects are required to supplement their formal degree program with additional background course work. Such students must earn or have earned the undergraduate credits, or their equivalents, stipulated: 9 semester hours in economics (at least one course beyond a full year in basic economics); 6 semester hours in accounting (at least one full year). The following credits may be either semester hours or quarter hours: 3 credits in management; 3 credits in finance; 3 credits in marketing; 3 credits in business law; and 3 credits in statistics.

For specific information concerning courses available in this program during any given semester, contact the Continuing Education Division, 119 Payson Smith Hall, 96 Falmouth Street, Portland.

### TWO-YEAR ASSOCIATE IN BUSINESS ADMINISTRATION PROGRAM

The University offers a two-year curriculum at Portland providing technical academic work in the field of business administration.

This is a semi-professional terminal program designed primarily for students who wish to complete their education in two years. It is designed to give the student a working knowledge of business functions and methods.

While the program emphasizes business, it contains some courses in liberal studies such as English composition, report writing, and human relations. Many electives in the business areas are available for selection by the student according to his interests and desires.



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Students admitted to the associate degree program at the Portland Campus pursue the following curriculum during their two years:

### First Year

FALL SEMESTER			SPRING SEMESTER		
Subject		Hours	Subject		Hours
3 Ba	Business and Society .....	3	4 Ba	Business and Society .....	3
9 Ba	Principles of Accounting .....	3	10 Ba	Principles of Accounting .....	3
1 Ec	Principles of Economics .....	3	2 Ec	Principles of Economics .....	3
1 Eh	Freshman Composition .....	3	9 Eh	Modern Literature .....	3
Pe 1	Physical Education .....	0	Pe 2	Physical Education .....	0
Elect one of the following:			Elect one of the following:		
1 Ba	Business Mathematics .....	3	2 Ba	Business Mathematics .....	3
Ms 13	Elementary Analysis .....	3	Ms 14	Probability .....	3
Ms 5	Elements of College Mathematics .....	3	Ms 6	Elements of College Mathematics .....	3
		15			15

### Second Year

FALL SEMESTER			SPRING SEMESTER		
Subject		Hours	Subject		Hours
23 Ba	Elements of Industrial Management .....	3	47 Ba	Business Data Processing .....	3
30 Ba	Business Law .....	3	90 Ba	Problems of Small Business ....	3
63 Ba	Marketing .....	3	19 Eh	Expository Writing .....	3
91 Ba	Human Relations in Business ..	3	Elect one of the following:		
Elect one of the following:			66 Ba	Retailing .....	3
41 Ba	Intermediate Accounting .....	3	67 Ba	Sales Management .....	3
51 Ba	Business Finance .....	3	Elect one of the following:		
		15	42 Ba	Intermediate Accounting .....	3
			52 Ba	Business Finance .....	3
			56 Ba	Investment Strategy .....	3
					15			15

Upon completion of the 60-hour program with an accumulative grade point average of 1.8, a student will be awarded the degree of associate 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, and accounting. Students who qualify with high academic averages may, if they desire, continue their education by transferring into the four-year program in Business Administration here or at other institutions.

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 and the Strong Vocational Interest Test.

## ASSOCIATE DEGREE PROGRAM

**1/2 Ba. Business Mathematics** — The first semester introduces the student to the basic elements of algebra and geometry. The concepts of linear equations and systems are then developed which lead to the solution of business problems through the techniques of linear programming. Elements of the calculus and basic probability are then introduced as tools for business decision-making. Cr 3. (Students with sufficient secondary school background in mathematics may substitute Ms 13/14 or Ms 5/6 for this course.) Van Amburg

**3/4 Ba. Business and Society** — An examination of the significant relationships between business and the social, political, and economic environment of our society for the purpose of evaluating goals, values, ethics, and practices in the business world. Cr 3. Taylor

**9 Ba. Principles of Accounting I** — An introduction to accounting principles and concepts. Emphasis on the preparation and interpretation of reports for financial and management uses and the accounting for assets, liabilities, revenues, and expenses. Cr 3. McKeil

**10 Ba. Principles of Accounting II** — An introduction to the accounting for partnership, corporations, and manufacturers. Emphasis on analysis and interpretation of accounting data and its use in management planning and control. Prerequisite: 9 Ba. Cr 3. McKeil

**23 Ba. Elements of Industrial Management** — A comprehensive survey of all phases of the management of industrial and business enterprises. The influence of industrial relations is interspersed with the treatment of management's technical problems. Prerequisite: Ec 1/2. Cr 3. Annett

**30 Ba. Business Law** — This course, an introduction to the study of business law, includes origins of the law, its nature and classification; contract law and the laws of agency and personal property are comprehensively dealt with. Cr 3. Emanuelson

**41/42 Ba. Intermediate Accounting** — An intensive study of accounting theory, including asset valuation, depreciation theory, liability recognition, corporation equity measurement, determination of periodic income, and revenue recognition. Prerequisite: 9, 10 Ba. Cr 3. Hall

**47 Ba. Business Data Processing** — The application of electronic data processing equipment to accounting systems. Basic principles of operation and programming. Selected case problems. Prerequisite: 9, 10 Ba. Cr 3. Siedlik

**51/52 Ba. Business Finance** — The first semester deals with the promotion, organization, and financing of the single proprietorship, partnership, and corporation. Students who elect to continue with the second semester will utilize advanced cases and problems related to the theory and principles developed in the first semester. The first semester may also be used as a prerequisite for 56 Ba. Investment Strategy. Prerequisite: 1/2 Ec; 9, 10 Ba. Cr 3. Andrews

**56 Ba. Investment Management** — Provides the planning and management of investment programs for all types of investors. Evaluates the various media of investments in terms of their risks and profits. The functions of the stock market and its behavior are examined. Prerequisite: 1/2 Ec; 9, 10 Ba. Cr 3. Andrews

**63 Ba. Marketing** — Problems of distribution for representative industrial and consumer goods, including merchandising policies, selection of distribution channels, price policies, and advertising and sales promotion methods. Prerequisite: 1/2 Ec, 9 Ba. Andrews

**66 Ba. Retailing** — Study of the retail distribution structure and of the problems involved in successful store operation under current conditions. Prerequisite: 63 Ba. Cr 3.

**67 Ba. Sales Management** — Analysis of the problems facing marketing management in formulating sales policy and in managing the sales organization. Prerequisite: 63 Ba. Cr 3. Taylor



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**90 Ba. Problems of Small Business** — Aspects of management that are uniquely important to small firms, in the interest of developing an understanding of the economic and social environment in which the small concern functions. Practice in decision-making on the same types of problems that small businessmen face. Problems relevant to small business operations in Maine will be stressed. Prerequisite: 9 Ba. Cr 3. Annett

**91 Ba. Human Relations in Business** — Introduction to the behavioral sciences, emphasizing typical behavioral problems faced in business by employees and management. The laboratory method of teaching, involving the student in role playing and analyzing collected data, is supplemented with lectures, case analysis, and outside reading. Cr 3. Annett

**1/2 Ec. Principles of Economics** — Analysis of the fundamental characteristics and institutions of modern economic society, including business and labor organization, national and international policies. Cr 3. McKeil



## UNDERGRADUATE COURSES IN BUSINESS ADMINISTRATION

**Ba 9. Principles of Accounting I** — An introduction to accounting principles and concepts. Emphasis is placed on the preparation and interpretation of reports for financial and management uses and the accounting for assets, liabilities, revenues, and expenses. Cr 3. Findlay, Jagolinzer

**Ba 10. Principles of Accounting II** — An introduction to the accounting for partnership, corporations, and manufacturers. Emphasis is placed on analysis and interpretation of accounting data and its use in management planning and control. Prerequisite: Ba 9. Cr 3. Findlay

**Ba 23. Elements of Industrial Management** — A comprehensive survey of all phases of the management of industrial and business enterprises. The influence of industrial relations is interspersed with the treatment of management's technical problems. Prerequisite: Ec 1.2. Cr 3. Taylor

**Ba 41/42. Intermediate Accounting** — An intensive study of accounting theory including asset valuation, depreciation theory, liability recognition, corporation equity measurement, determination of periodic income, and revenue recognition. Prerequisite: Ba 9, 10. Cr 3. Findlay

**Ba 63. Marketing** — Problems of distribution for representative industrial and consumer goods, including merchandising policies, selection of distribution channels, price policies, and advertising and sales promotion methods. Prerequisite: Ec 1.2. Cr 3. Manck

**Ba 76. Federal Tax Reporting** — Federal tax laws as they affect individuals, partnerships, corporations, and estates. An opportunity is given the student to become familiar with tax forms. Prerequisite: Ba 9, 10, Cr 3. Jagolinzer

**Ba 130. Business Law** — This course, an introduction to the study of business law, includes origins of the law, its nature and classification; contract law and the laws of agency and personal property are comprehensively dealt with. Cr 3. Jagolinzer

**Ba 143/144. Advanced Accounting** — A study of accounting principles and theory related to: sources and application of funds; partnerships; consignment and installment sales; receiverships, estates, and trusts; governmental and institutional accounting; home office and branch accounting; consolidations, mergers, and parent and subsidiary accounting. Prerequisite: Ba 41/42. Cr 3. Hall

**Ba 145/146. Cost Accounting** — 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 cost-volume-profit analysis. Direct costing. Second semester devoted primarily to a detailed study of management uses of cost data. In addition, budgets, forecasting, and capital budgeting are discussed. Prerequisite: Ba 9, 10, Cr 3. Jagolinzer

**Ba 147. Business Data Processing** — The application of electronic data processing equipment to accounting systems. Basic principles of operation and programming. Selected case problems. Prerequisite: Ba 9. Cr 3. Siedlik

**Ba 148. Auditing** — 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. Prerequisite: Ba 41/42. Cr 3. Findlay

**Ba 149. Business Economics** — Application of economic analysis to concrete business situations. Emphasis on developing the student's ability to apply economic analysis to the solution of problems faced by business management. Prerequisite: Ba 151. Cr 3. Durgin

**Ba 151. Business Finance** — This course deals with the promotion, organization, and financing of the single proprietorship, partnership, and corporation. It also utilizes advanced cases and problems related to the above topics. Prerequisite: Ec 1.2 and Ba 9/10. Cr 3. Fitzpatrick

**Ba 156. Investment Management** — Provides the planning and management of investment programs for all types of investors. Evaluates the various media of investments in terms of their risks and profits. The functions of the stock market and its behavior are examined. Prerequisite: Ba 151. Cr 3. Fitzpatrick

**(Ba 157. Forward Planning and Capital Decisions)** — Basic financial forecasting and risk evaluation are combined with profit-volume-cost analysis as essentials in fully evaluating capital expenditure proposals. Cost of capital and other tools are developed for use in the decision-making process. Prerequisite: Ba 195 and permission of instructor. Cr 3. Fitzpatrick

**Ba 159. Business Management and Policy** — Administrative practice at the higher levels of business management through case analysis and discussion. The course attempts to coordinate the background of business majors in the formulation and administration of sound business policy. Prerequisite: Ba 9/10, 23, 63, and senior standing. Cr 3. Waters

**Ba 161. Personnel Management** — The selection, training, and management of personnel in private and public business. Designed for the student interested in administration, office management, or personnel work in education, business, engineering, public service, and other fields. Prerequisite: Ec 1.2. Cr 3. Chandler

**Ba 162. Industrial Relations** — A study of industrial relations patterns in the U. S. Major focus is on the relationship between management and organized labor, and the bargaining, administration, and interpretation of contracts. The problem of dispute settlement and a comparison of methods used in the U. S. and abroad. Attention is also given to industrial relations in unorganized firms and in the Civil Service. Prerequisite: Ec 1.2. Cr 3. Chandler



## PORTLAND

**Ba 164. Dynamics of Organization and Behavior** — An analysis of business organization and the problems of administrators in an interpersonal setting. Primary emphasis is on the findings of behavioral sciences which are particularly relevant to the management of economic enterprises. Also an examination of interdisciplinary approaches 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: Ba 23. Cr 3.

**Ba 165. Advertising** — The place of advertising in the marketing program. Business cases are analyzed to determine those situations in which advertising may be profitably employed to stimulate primary and selective demand for industrial and consumer goods and services. Prerequisite: Ba 63. Cr 3. **Manck**

**Ba 167. Sales Management** — An analysis of the problems facing marketing management in formulating sales policy and in managing the sales organization. Prerequisite: Ba 63. Cr 3.

**Ba 169. Marketing Research** — A consideration of marketing research as a tool in the solution of problems in production and distribution. Emphasis on problem formulation, exploratory research, research design, basic observational and sampling requirements, data analysis, interpretation, and sampling. Prerequisite: Ba 63 and Ms 19. Cr 3.

**Ba 170. Managerial Marketing** — A managerial approach emphasizing the integration of marketing, as an organic activity, with other activities of the business firm. Study is directed toward recognition and appreciation of the problems encountered by top marketing executives in modern business, with a consideration of the policies and procedures that may be followed in their solution. By case analysis and consideration of current marketing literature, students are provided opportunities for development of abilities in solving marketing management problems. Prerequisite: Ba 63 and Ms 16 or Ms 19. Cr 3. **Manck**

**Ba 195. Financial Research Seminar** — Techniques of research and analysis are introduced and applied to topical areas in finance, such as money, credit, banking and debt instruments. Prerequisite: Ba 156 and permission. **Fitzpatrick**

**Ba 199. Independent Readings and Research in Business** — Selected topics in the various areas of accounting, finance, management, and marketing may be studied and researched on an independent basis. Prerequisite: Senior standing and permission of the instructor. Cr 3. (Not for graduate credit)





### COURSES IN THE MASTERS OF BUSINESS ADMINISTRATION PROGRAM

**Ba 310. Management Policy** — Administrative practice at the higher levels of business management. Coordinates the analysis of all pertinent business functions in specific case studies for the purpose of developing administrative competence in the formulation of business policy at the decision-making level. Prerequisite: 6 hours in business subjects and permission. Cr 3. Plowman

**Ba 311. Managerial Economics** — 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: 9 semester hours in economics or permission. Cr 3. Durgin

**Ba 312. Managerial Accounting** — Development, analysis, and interpretation of accounting data and financial statements for managerial control, coordination, and decision-making; emphasis upon accounting as a tool of management. Topics are developed by utilization of case studies, problems, and reference material. Prerequisite: 6 semester hours in accounting. Cr 3. Findlay

**Ba 313. Business Cycles and Forecasting** — An examination of cyclical movements in the level of economic activity and appropriate methods for their measurement. Includes an analysis of the principal theories of the forces that shape these fluctuations. Relates the statistical methods of forecasting activity in the major economic sectors to the planning function of management. Prerequisite: 6 semester hours in economics. Cr 3. Bay

**Ba 314. Financial Management** — A consideration of management decisions in the administration of corporate funds. Specific areas covered include capital budgeting, inventory control, working capital management, and the cost of capital. The side effects of taxation, depreciation methods, and earnings retention policies are noted. Current capital structure patterns are analyzed and evaluated. Prerequisite: One course in finance and permission. Cr 3. Fitzpatrick





**Ba 315. Marketing Management** — This course is concerned with developing an ability to analyze marketing problems while acquiring a positive attitude as to the role that marketing plays in overall business strategy. Emphasis given to the building of integrated marketing programs designed to implement the long-term objectives of a business organization. In general, the viewpoint emphasized will be that of the high level marketing executive. Prerequisite: One course in marketing and permission. Cr 3. Waters

**Ba 316. Industrial Relations and Personnel Management** — A comprehensive investigation of the changing pattern of industrial relations in the United States. Major emphasis is on the human, social, and economic aspects of employer-employee relationships in both union and non-union settings. Provides an understanding of and appreciation for the crucial importance of the development of sound and flexible personnel policies by top management. Among the areas considered are: the changing nature of the labor force; wages, salaries, and fringe benefits; hours of work; and the impact of technological change on the work force. Prerequisite: One course in management or industrial relations and permission. Cr 3. Chandler

**Ba 320. Market Research and Analysis** — A study of the procedure and applications of market research. Such areas as the organization and operation of a research department, survey methods, experimentation, measurement of potential demand, and the analysis of distribution costs are considered. Emphasis on developing the student's ability to apply these and other techniques toward the solution of marketing problems. Prerequisite: Ba 315 and one course in statistics. Cr 3. Manck

**(Ba 321. Human Relations in Industry)** — This course is designed to acquaint the student with the complex system of interdependent human, social, technical, and organizational forces which underlie the feelings, action, and relationships of people in organizations. Such subjects as leadership theory, organizational theory, individual and group behavior, and communication theory are presented. Prerequisite: 6 hours in business subjects and permission. Cr 3. Waters

**Ba 322. Operations Research** — 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 post-optimality 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. Prerequisite: One course in statistics and permission. Cr 3. Siedlik

**(Ba 323. Production Management)** — Decision models will be introduced with emphasis on statistical inference and decision theory, queueing 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: Ba 322 or permission of instructor. Cr 3.

**Ba 324. Investment Management** — Emphasizes analysis and valuation procedures required to determine the investment quality of specific securities. Sets forth criteria for the formulation of a sound investment policy and the selection of investment media to implement it. Develops the techniques of continuing portfolio management and the task of periodic reappraisal. Prerequisite: One course in finance and permission. Cr 3. Fitzpatrick

**Ba 325. Collective Bargaining** — Discusses the major issues and problems in the collective bargaining process. Provides the business manager with the knowledge of sound collective bargaining attitudes and techniques necessary to achieve a responsible and mature attitude in his relationship with employee representatives. To this end, major focus is on the development of the union movement in this country, the changing nature of public policy toward collective bargaining, and the public responsibility of both unions and management. In addition, attention is given to the specific tools of collective bargaining, including strikes, lock-outs, grievance procedures, arbitration, mediation, and bargaining strategies and techniques. Prerequisite: Ba 316. Cr 3. Chandler

**Ba 326. Organizational Behavior in Business** — Emphasis on the importance of the influence process, motivational settings, and the structural backgrounds of organizational status and social relations. Analysis through case discussion and readings will develop a conceptual framework for improving individual decision-making ability with respect to individual, group, and intergroup problems. Prerequisite: One course in management and permission. Cr 3.

**Ba 327. Business Logistics** — Explores in depth the need for and means of centralization of decision-making to accomplish effective senior-executive control of the chain of logistics activities from point of completion of manufacturing or other form-utility creating process to delivery at the point of use or consumption. Inter-discipline 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: Ba 322 (Operations Research) or consent of the instructor. Cr 3. Plowman



## ECONOMICS

**Ec 1.2. Principles of Economics** — Analysis of the fundamental characteristics and institutions of modern economic society, including business and labor organization, national and international policies. Cr 3. Bien

**Ec 37. Comparative Economic Systems** — The structures and operating principles of the major contemporary economic systems are examined and compared. Prerequisite: Ec 1.2. Cr 3. Durgin



## PORTLAND

*Ec 38. The Economic System of the Soviet Union* — A study of the development, institution, and structure of the Soviet economy. Emphasis on current theories and problems of central planning. Prerequisite: Ec 1.2. Cr 3. Durgin

*Ec 132. Macro Economic Analysis* — An analysis of the basic forces that cause inflation, growth, and fluctuations in economic activity. The effects on employment, investment, and other factors are thoroughly treated. Stabilization policies are examined and evaluated. Prerequisite: Ec 1.2. Cr 3. Bay

*(Ec 133. Labor Economics)* — A discussion of labor in an industrial society serves as background for an examination of the origins and structure of the labor movement, the theories of the labor movement, the theories of wages and labor's income, the process of collective bargaining in industrial relations, and the development of labor legislation and social security laws. Prerequisite: Ec 1.2. Cr 3.

*Ec 135. History of Economic Thought* — A survey of the development of basic economic principles and theories from pre-industrial times to the present. Major emphasis is on the Classical School (Smith, Ricardo, and Malthus), and its critics, the development of the Austrian School, the synthesis of Neo-Classicism, and the emergence of Macro-economics. Prerequisite: Ec 1.2. Cr 3. Durgin

*Ec 138. Economic Development* — The theories and practices of interregional and international economic development. Special attention is given to development problems of emerging nations. Prerequisite: Ec 1.2. Cr 3.

*Ec 139/140. International Trade and Commercial Policy* — 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. Prerequisite: Ec 1.2. Cr 3. Bien

*Ec 153. Money and Banking* — An extensive examination of the operation and performance of the American banking and financial system. Includes a study of monetary theory and policy. Debt management and present international monetary problems are discussed briefly. Prerequisite: Ec 1.2. Cr 3. Bay

*Ec 165. Social Control of Business* — Public policy toward business; government powers and private rights; government aids; regulation of competition and monopoly; public enterprise. Prerequisite: Ec 1.2. Cr 3. McMahon

*Ec 171. Public Finance and Fiscal Policy* — Public expenditure theory; principles of taxation; the federal budget and alternative budget policies; federal tax policy; fiscal policy for stabilization; federal debt. Prerequisite: Ec 1.2. Cr 3. McMahon

*Ec 172. State and Local Government Finance* — Development of the federal system; fiscal performance; intergovernmental fiscal relations; state and local revenue systems; budgetary practices; state and local debt. Prerequisite: Ec 1.2. Cr 3. McMahon

*Ec 173. Micro Economic Analysis* — Price, income, and employment theory as tools in the study of economics. Prerequisite: Ec 1.2. Cr 3. Bien

*Ec 175. Industrial Organization* — Emphasis on determining the relationship between market structure, conduct, and performance. Also, the development of a general analytical framework to permit an assessment of performance in existing markets. Finally, current public policy in this area is evaluated in the framework of the above analysis. Prerequisite: Ec 173. Cr 3.

*Ec 199. Independent Readings and Research in Economics* — Selected topics in the various areas of economics may be studied and researched on an independent basis. Prerequisite: Senior standing and permission of the instructor. Cr 3. (Not for graduate credit)



# Humanities

RICHARD N. COFFIN, Acting Chairman

## ART

Associate Professor Bearce (Discipline Representative);  
Assistant Professor Rakovan; Instructor Reid

Art is becoming more and more important as a significant resource for leisure time in a changing and mechanized world. The program is divided into studio work (basic and advanced in object, cast, and life drawing and painting) as well as a more academic study of history of architecture, painting, and sculpture. The discipline also conducts a guided tour to the Boston Museum of Fine Arts twice a year.

Practical courses are held in modern, well-equipped, and lighted studios. In good weather the classes sometimes make excursions to Portland's waterfront, docks, fishing fleet, and historic urban areas.

**At 1. Basic Drawing** — An introduction to academic drawing increasing the student's awareness of the elements of art—line — form, texture, composition — with the use of charcoal, pencil, graphite, ink, wash, and later watercolor. Work in the studio as well as outdoors. Cr 3. Rakovan

**At 2. Basic Drawing** — A continuation of At 1 with the development of each student's individual facility and skill. Painting excursions to Portland's waterfront, docks, fishing fleet, and nearby islands. Ink, watercolor, paste. Prerequisite: At 1. Cr 3. Rakovan



## PORTLAND

*At 3. 4. Principles of Art* — The basic principles of art — its substance, nature, and classifications. An analysis of architectural, sculptural, and pictorial forms. Not an historic study of art, although masterpieces are studied. Cr 2. Rakovan

*At 5. 6. Art Appreciation and History* — Techniques and trends in architecture, sculpture, and painting as related to the history of art from the earliest times to the present day. Lectures, text, slides, and prints. Cr 3. Reid

*At 7. Design* — Fundamentals of design through visual arts. Blockprint, silk screening, posters. Two-dimensional design problems. Cr 2. Bearce

*At 8. Design* — Fundamentals of design through the visual arts. Clay modeling, plaster casting, papier mache, wire sculpture. Three-dimensional design problems. Cr 2. Bearce

*At 9/10. Advanced Design* — Advanced work in design problems, using design experiences introduced in basic course. Two- and three-dimensional problems applied to graphics, fabrics, sculpture, construction, etc. Prerequisite: At 1/2 or 7 and 8. Cr 2. Bearce

*At 11/12. Advanced Drawing* — Advanced studies in form, space, composition, and life drawing. Field trips for outdoor sketching and painting. Development from charcoal to watercolor painting. Prerequisite: At 1/2, Cr 3. Bearce

*At 13. 14. Fundamentals of Painting* — Basic introduction to painting using various media. The study of color and composition in both studio and outdoor subjects. Prerequisite: At 1/2 or permission (not open to art majors). Cr 3. Bearce

*At 15/16. Painting* (for art majors) — Studio and outdoor study of composition, color, etc. Use of various media including oil, watercolor, gouache, oil, and acrylic. Prerequisite: At 11/12, Cr 3. Bearce

*At 23. 24. History of Modern Art* — A study of the modern movements in Western art starting with the mid-nineteenth century to the present. Growth and development of the modern "isms" including Pop and Op. Cr 3. Rakovan

*At 30. Materials and Techniques* — Materials, methods, and techniques for the professional artist-craftsman. Examination, comparison, and testing materials and processes of painting, frescoes, mosaics, graphics, and sculpture. Prerequisite: At 1/2 or permission. Cr 3. Rakovan

*At 31. History and Appreciation of the Graphic Arts* — An explanation of the graphic techniques: woodcut, engraving, etching, aquatint, lithography, etc. A study of the graphic arts as they have evolved throughout the history of art with emphasis upon the important graphic artists of Europe, America, and the Orient. Exercise in the appreciation and understanding of the products of the graphic artist. Cr 3. Reid

*At 35/36. Printmaking-Intaglio* — Introduction to intaglio printmaking using etching, engraving, aquatint, mezzotint, and drypoint. Prerequisite: At 1/2 or permission. Cr 3. Bearce

*At 37/38. Printmaking-Lithography* — Introduction to the process of lithographic printing from stones. Prerequisite: At 1/2 or permission. Cr 3. Rakovan

*At 65. 66. Methods and Curricula in Art Education* — Contemporary objectives in the teaching of art in the elementary (65) and the secondary (66) schools. Selection and planning of materials, techniques, and curricula. Permission of the instructor. Cr 3.

*At 69. The Teaching of Art* — Current methods and materials for the teaching of art in the elementary grades by the classroom teacher. Theory and actual experience with various two- and three-dimensional art projects. Cr 3.

*At 71. History of Architecture and the Urban Environment* — A study of the European-American tradition of architectural design with emphasis upon the basic styles which influence American architecture and their utilization in urban America. Consideration of aesthetic and social interplay of architectural design throughout history, especially as it is manifest in urban design. Cr 3. Reid

*At 97. 98. Problems in Art* — Advanced projects for student research and presentation. Undergraduate thesis or exhibition. Permission of staff. Cr Ar.

## ENGLISH

Professors Bernard, Jackson; Associate Professors Coffin, Jaques, Baier; Assistant Professors Burke, Selkin, Duclos, Lewisohn; Instructors McKibben, Milliken, Roerden, Wilson, Wolf (Discipline Representative)

The following are required for a major in English;

1. Eh 3, 4;
2. Eh 7 or Eh 8;
3. Eh 157.158;
4. Eh 153 or Eh 164;
5. Either Eh 43 or Eh 44;
6. A minimum of 36 credit hours (and a maximum of 48) deriving from the courses in English shown above and listed below, from all courses in comparative literature, from all classics courses, and from all honors courses in the field of English; but *excluding* the courses for which no credit toward the major in English will be given, to wit: Eh 1,2; Eh 15.16; Eh 19; Eh 9 (if taken to fulfill freshmen requirements).

The student should plan his major in English *with his advisor*, supplementing the minimal requirements, shown above, as suggested below:

- a) A student planning to teach English should take a few courses in linguistics and grammar.
- b) If planning to enter Graduate School, he should prepare for the Graduate Record Examination (GRE) by including all the necessary chronological ("period") courses; n.b., language requirements should also be anticipated.
- c) If interested in creative writing, he should plan to take as many courses in composition and in the 20th century as feasible.
- d) If interested in English literature solely for its own sake, he should pursue his own lines of interest with a view to his own individual development as a guide.

The department recommends that all students majoring in English take a course in English history.

## COURSE DESCRIPTIONS

**Eh 1. Freshman Composition** — Intensive practice in expository writing, with reading of illustrative material. Required normally of freshmen. Cr 3. Staff

**Eh 3.4. English Literature** — Readings of the chief English authors in chronological order, with class discussion. First semester, from the beginnings to 1700; second semester, from 1700 to about 1918. Cr 3. Jackson

**Eh 6. Introduction to Literary Forms and Terms** — Reading and discussion of literary types. A course intended primarily for prospective majors in English. Open to freshmen. Cr 3. Wilson

**Eh 7.8. Advanced Composition** — A course for those who wish to develop greater skill in writing, either for their own pleasure or for professional use. *Not* a remedial course. Prerequisite: 2 semesters of freshman English; or permission of instructor. Cr 3. Bernard

**Eh 9. Modern Literature** — Readings in significant literature of the last half-century. Normally required of freshmen who have not taken Eh 2. Cr 3. Staff



## PORTLAND

**Eh 15.16. Masterpieces of English and American Literature** — An introduction to literary appreciation through the study of selected masterpieces. Recommended for non-majors who have not previously taken advanced courses in literature. Cr 3. **Staff**

**Eh 19. Expository Writing** — Primarily for juniors and seniors majoring in Business Administration. Training in clear expository writing of formal reports, business communications, and related materials. Cr 3. **Jaques**

**Eh 25. Twentieth Century British Prose and Poetry** — Works from 1900 to 1950, with emphasis on authors Conrad, Foster, Joyce, Greene, and Huxley; and poets Yeats, Auden, Hardy, and Thomas. Cr 3. **Wilson**

**Eh 43.44. American Literature** — American literature through the 18th and 19th centuries, with emphasis on the principal writers. Cr 3. **Jaques**

**Eh 121. Modern Grammar** — This course is particularly for prospective English teachers. It introduces traditional and modern grammars. Cr 3. **Coffin**

**Eh 141. Elementary Linguistics** — The study of the structure of languages and the application of ideas of structure to the interpretation of literature. Recommended for English and language majors interested in teaching. Cr 3. **Coffin**

**Eh 145. Semantics** — Interpretation of literature by means of analysis of the language used. Recommended for prospective teachers of literature and English. Cr 3. **Coffin**

**Eh 149. Introductory Linguistics** — The student is introduced to the study of languages by means of the methods used for understanding the structure and meaning of language. Cr 3. **Coffin**

**Eh 153. Chaucer** — Selections from the major poetry, with attention to the literary and historical background. Cr 3. **Burke**

**Eh 157.158. Shakespeare** — A survey of the comedies, histories, plays, and tragedies. Attention is focused on the comedies and histories in the first semester; on the tragedies in the second semester. Cr 3. **Jackson**

**Eh 159. Elizabethan Prose and Verse** — Major and representative non-dramatic writers, exclusive of Milton, in relation to their cultural background, 1557-1600. Prerequisite: Eh 3, 4; or permission of instructor. Cr 3. **Bernard**

**Eh 160. Seventeenth Century English Prose and Verse** — Major and representative non-dramatic writers (exclusive of Milton) in relation to their cultural background, 1600-1660. Cr 3. **Baier**

**Eh 161. British Drama** — Shakespeare's predecessors, contemporaries, and followers to 1642. Prerequisite; Eh 3, 4; or permission of instructor. Cr 3. **Bernard**

**Eh 164. Milton** — The poetry and prose, with attention to the literary and historical background. Cr 3. **Baier**

**Eh 166. The Age of Dryden and Pope** — Restoration literature (1660-1740) and the evolution of neo-classicism in the early 18th century. Cr 3. **Selkin**

**Eh 167. History of the English Language** — Main aspects of the development of Modern English from Old and Middle English; words and their backgrounds; changes in sound, form, and meaning. Cr 3. **Bernard**

**Eh 168. The Age of Johnson** — The later 18th century, especially Dr. Johnson and his circle, and the beginnings of Romanticism. Cr 3. **Selkin**

**Eh 169. Poetry of the Romantic Movement** — Wordsworth, Coleridge, Scott, Byron, Shelley, Keats, and their contemporaries, against the background of their time. Cr 3. **Jackson**

**Eh 171. Victorian Poetry** — Browning, Tennyson, Arnold, and the Pre-Raphaelites and their contemporaries. Cr 3. **Wilson**

**Eh 172. *The New England Renaissance*** — The great writers of the United States in the mid-19th century, their works, personalities, and social background. Cr 3. Jaques

**Eh 174.175. *The American Novel*** — Semester I: the novel from Brown to James; Semester II: from Crane to the present. Cr 3. Burke

**Eh 181.182. *The English Novel*** — The principal novelists from the beginning to Sir Walter Scott in the first semester. In the second semester, novelists from Jane Austen to Thomas Hardy. Prerequisite: Eh 3,4 or permission of instructor. Cr 3. Bernard

**Eh 183. *The English Prose Stylists of the 19th Century*** — Not including fiction. The major essayists from Lamb to Stevenson. Studies of content and literary style. Cr 3. Staff

**Eh 194. *British Fiction*** — The best British fiction since 1900 with emphasis on contemporary writing. Cr 3. Staff

**Eh 195. *Twentieth Century British Poetry*** — The major poets of Great Britain and Ireland from 1900 to the present. Not open to those who have had Eh 45. Offered in Continuing Education program only. Cr 3. Lewisohn

**Eh 196. *Twentieth Century American Poetry*** — The major poets of the United States from 1900 to present. Not open to those who have had Eh 46. Offered in Continuing Education program only. Cr 3. Lewisohn

**Eh 241.242. *Linguistics*** — Analysis of various language principles to provide an understanding of grammar and language arts. Recommended for English and language teachers or prospective teachers. Cr 3. Coffin

**Eh 254. *Pre-Shakespearian Drama*** — Medieval and Renaissance drama in England to 1590. The evolution of secular drama from its religious origins through the achievement of Marlowe. Cr 3. Bernard

**Eh 255. *Sixteenth Century Prose and Verse*** — The prose and the non-dramatic poetry of the 16th century. Major authors of the Tudor Age (1485-1603) in their cultural setting from Skelton to Donne. Cr 3. Bernard

**Eh 391. *Sixteenth Century Topics*** — Cr 3. Bernard

(Eh 396. *Seminar in Linguistics and Semantics*) Cr 3. Bernard, Coffin

## COMPARATIVE LITERATURE

**Cp 140. *The English Bible*** — The English Bible studied as one of the masterpieces of English literature. Prerequisite: Eh 3,4; or Eh 15.16; or permission of instructor. Cr 3. Bernard

**Cp 151. *Epic Masterpieces of the Middle Ages*** — The *Nibelungenlied*, *Beowulf*, *Chanson de Roland*, and the *Cid* will be studied, with attention also paid to legendary material of Celtic origin. Prerequisite: Eh 3,4 or Eh 15.16; or Fr 5/6 or Fr 57.58; or Sp 3/4 or Sp 57.58; or Gm 3/4 or Gm 57.58; or Ru 3,4; or permission of instructor. Cr 3. Bernard

**Cp 175.176. *European Literature*** — Continental Western European literature in translation. From Homer to Dante in the first semester continuing to the present in the second semester. Recommended for majors in history or a foreign language, and for students preparing for library work. Prerequisite: Eh 3,4 or Eh 15.16; or Fr 5/6 or Fr 57.58; or Sp 3/4 or Sp 57.58; or Gm 3/4 or Gm 57.58; or permission of instructor. Cr 3. Bernard

**Cp 191. *Early 20th Century Drama of the Western World*** — A study of such major dramatists as Ibsen, Strindberg, Chekov, Pirandello, Shaw, and O'Casey. Cr 3. Duclos

**Cp 192. *20th Century Drama of the Western World*** — A study of such major dramatists as Brecht, Anouilh, Giradoux, Williams, Miller, and Albee, and the Theatre of the Absurd, with Beckett, Ionesco, Genet, Pinter, etc. Cr 3. Duclos



## PORTLAND

*Cp 230. Oriental and Primitive Masterpieces* — 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. *Cr 3.* Coffin

*Cp 231. Oriental and Oceanic Masterpieces* — The course introduces the best of Chinese and lyrical poetry and the spiritual epics of India. Related material of interest will be used from Tibet and Oceania. *Cr 3.* Coffin

## FOREIGN LANGUAGES AND CLASSICS

Associate Professors Clark, G. Duclos, Lepelley, F. Schwanauer; Assistant Professors Crochet, Dalvet (Discipline Representative); Instructors Di Benedetto, Hernandez, Rolfe, Ubans, J. Schwanauer.

The curriculum is designed to develop skill in reading, writing, speaking, and listening comprehension in the foreign languages and to offer an initiation to the corresponding cultures and literatures. The language laboratory located in Payson Smith Hall, Room 203, is an important adjunct to the study of the modern language.

At the present time the discipline offers a major only in French. The student must take a minimum of 30 hours above the level of French 3/4, of which at least 24 hours must be in literature courses on the 100 level. European History (Hy 5.6) is required of all French majors; Fl 166 of those who plan to teach; Fr 157/158 is strongly recommended for all. Students should also choose elective courses in the liberal arts and in history. They are encouraged to study a second language, modern or classical, and to plan a trip to a French-speaking country either as a junior year abroad or after graduation.

Courses numbered 3/4 are prerequisites to all other courses identified by a larger number. Fr 109,110 should precede the first year of French literature study or be included in it; if it should follow it, the student must ask for the instructor's permission.

The language requirement — which applies only to students who are working toward a B.A. — is satisfied by completion of the intermediate level in any language or by proof of an equivalent proficiency.

## CLASSICS

*Cl 1.2. Greek and Latin Literature in English Translation* — In the first semester, epic and lyric poetry; in the second semester, tragedy and comedy. No knowledge of Greek or Latin is necessary. *Cr 3.* Duclos

*Gk 1-2. Elementary Greek: Fundamentals of the Greek Language* — In the second semester, selections from Euripides' *Alcestis*. Emphasis upon acquisition of reading knowledge of Attic Greek. No prerequisites. *Cr 3.* Duclos

*Lt 3/4. Intermediate Latin* — Selected readings in prose and poetry, for students who have had at least two years of high school Latin. *Cr 3.* Duclos

*(Lt 9.10. Readings in Latin Literature)* — Readings in the prose and poetry of the Late Republic and Early Empire, with emphasis upon literary values. *Cr 3.* Duclos

Offered in 1971-72

## FOREIGN LANGUAGES

*Fl 166. The Teaching of Foreign Languages* — Principles and practices of teaching foreign languages. Analysis of current trends and methods. Application of language-learning principles to classroom procedures. Theory and practice of language methodologies at different learning levels. For seniors seeking certification in foreign language teaching. *Cr 3.*



## FRENCH

**Fr 1-2. Elementary French** — Beginner's course in French. Initiation in the four skills of language learning: listening comprehension, speaking, reading, and writing. Three weekly hours of classwork. Students are encouraged to register at the same time for Fr 1a-2a. *Cr 3.* Di Benedetto

**Fr 1a-2a. Laboratory Practice for Fr 1-2** — For students taking Fr 1-2 who wish to use the language laboratory for oral practice. Under supervision of their instructor, they attend the laboratory twice a week for a practice of about one-half hour. Tests may be given and, with a final examination, determine the final grade. *Cr 1.* Di Benedetto

**Fr 3/4. Intermediate French** — For students who have completed Fr 1-2 or have reached equivalent proficiency in the language. Review of grammar. Classroom practice aiming at fluency in speaking and reading. Three weekly hours of class. Students are encouraged to register at the same time for Fr 3a/4a. *Cr 3.* Dalvet

**Fr 3a/4a. Laboratory Practice for Fr 3/4** — For students taking Fr 3/4 who wish to use the language laboratory for oral practice. Under supervision of their instructor, they attend the laboratory twice a week for a practice of about one-half hour. Tests may be given and, with a final examination, determine the final grade. *Cr 1.* Dalvet, Lepelley

**Fr 7/8. Practical French** — Systematic training in correct pronunciation and usage, and in vocabulary building, with written and oral practice, phonetics, and work in the laboratory. Well-qualified students who have not taken Fr 7 may with permission elect Fr 8. *Cr 3.* Di Benedetto

**Fr 7a/8a. Supplementary Oral French** — For students needing oral practice. This course, which meets once a week, may be taken in conjunction with Fr 7/8. It is especially recommended for French majors who may take it repeatedly for credit. *Cr 1.* Di Benedetto

**Fr 11.12. Readings in French** — For students who wish further practice in reading. Texts of general interest (essays, biographies, sociology, history, psychology . . .) are read and discussed. Some literary texts are included. *Cr 3.* Lepelley

**Fr 109.110. Introduction to French Literature** — Reading and discussion of representative works of major periods in French literature from the Middle Ages to the present, and of the major genres (novel, drama, poetry). Techniques of close reading and *explication de texte* will be studied. Designed to give a general background for the major as well as to provide a representative sampling for the non-major. Should be taken in the junior year, or earlier if possible. *Cr 3.* Dalvet

**(Fr 153. The French Novel between 'the World Wars)** — Readings from Proust, Malraux, Camus, and others. *Cr 3.*

**Fr 154. The French Novel from World War II to the Present** — 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, and others. *Cr 3.* Di Benedetto



## PORTLAND

(Fr 156. *French Theatre in the Twentieth Century*) — Readings from Giraudoux, Cocteau, Anouilh, Sartre, Genet, Ionesco, and others. Cr 3.

Fr 157. *French Civilization: An Historical Approach* — Aspects of the society, institutions, arts, literature, and religion of France, from the origins to the end of the XIXth century. Cr 3. Lepelley

(Fr 158. *French Civilization: Contemporary France*) — Institutions, education, society, economy, politics. Cr 3.

Fr 167.168. *Advanced Grammar and Stylistics* — Designed to provide an adequate foundation in French grammar and syntax for prospective teachers. Recommended for seniors. Cr 3. Clark

Fr 171. *French Literature of the 17th Century until 1660* — Malherbe, Scarron, Descartes, Pascal, Corneille. (CED) Cr 3. Crochet

Fr 172. *French Literature of the 17th Century: The Apogee of the Classical Age* — Mme. de La Fayette, Moliere, Racine, La Fontaine, La Bruyere, Boileau. Cr 3. Lepelley

(Fr 173/174. *XVIIIth Century: The Enlightenment in French Literature*) — Works of Montesquieu, Voltaire, Diderot, Rousseau are studied for the originality of their ideas and forms. Cr 3.

(Fr 175. *Drama and Poetry from Romanticism to Symbolism*) — Lectures, readings, and discussions of plays and poetry by Hugo, Musset, Vigny, Baudelaire, Verlaine, Mallarme, Rimbaud, and other representative authors. Cr 3.

Fr 177. *The Nineteenth Century French Novel: Balzac and Stendhal* — Representative novels and short stories of Balzac, Stendhal, and contemporaries. Cr 3. Di Benedetto

Fr 178. *The Nineteenth Century French Novel: Flaubert and Zola* — Representative novels of Flaubert, Zola, and contemporaries. (CED) Cr 3. Crochet

Fr 181. *French Literature of the Medieval Period* — *Chansons de Geste*, Arthurian Romances and Chretien de Troyes; Theatre, Poetry. In modern French translation. Cr 3. Lepelley

## GERMAN

Gm 1-2. *Elementary German* — Beginner's course in German. Initiation in the four skills of language learning: listening comprehension, speaking, reading, and writing. Three weekly hours of classwork. Students are encouraged to register at the same time for Gm 1a.2a. Cr 3. Ubans

Gm 1a.2a. *Laboratory Practice for Gm 1-2* — For students taking Gm 1-2 who wish to use the language laboratory for oral practice. Under supervision of their instructor, they attend the laboratory twice a week for a practice of about one-half hour. Tests may be given and, with a final examination, determine the final grade. Cr 1. Ubans

Gm 3/4. *Intermediate German* — For students who have completed Gm 1-2 or have reached equivalent proficiency in the language. Review of grammar. Classroom practice aiming at fluency in speaking and reading. Three weekly hours of class. Students are encouraged to register at the same time for Gm 3a/4a. Cr 3. J. Schwanauer

Gm 3a/4a. *Laboratory Practice for Gm 3/4* — For students taking Gm 3/4 who wish to use the language laboratory for oral practice. Under supervision of their instructor, they attend the laboratory twice a week for a practice of about one-half hour. Tests may be given and, with a final examination, determine the final grade. Cr 1. J. Schwanauer

(Gm 7/8. *Practical German*) — Systematic training in correct pronunciation and usage, and in vocabulary building, with written and oral practice, and work in the laboratory. Well-qualified students who have not taken Gm 7 may with permission elect Gm 8. Cr 3.

*Gm 109.110. Readings in German Literature* — A survey of the important periods in German literature with readings of representative works. Cr 3. F. Schwanauer

## SPANISH

*Sp 1-2. Elementary Spanish* — Beginner's course in Spanish. Initiation in the four skills of language learning: listening comprehension, speaking, reading, and writing. Three weekly hours of classwork. Students are encouraged to register at the same time for *Sp 1a-2a*. Cr 3. Clark

*Sp 1a-2a. Laboratory Practice for Sp 1-2* — For students taking *Sp 1-2* who wish to use the language laboratory for oral practice. Under supervision of their instructor, they attend the laboratory twice a week for a practice of about one-half hour. Tests may be given and, with a final examination, determine the final grade. Cr 1. Clark

*Sp 3/4. Intermediate Spanish* — Continuation of 1-2. Laboratory practice. For students who have completed Spanish 1-2 or who have completed two or three years of high school Spanish. Cr 3. Hernandez

*Sp 3a/4a. Laboratory Practice for Sp 3/4* — For students taking *Sp 3/4* who wish to use the language laboratory for oral practice. Under supervision of their instructor, they attend the laboratory twice a week for a practice of about one-half hour. Tests may be given and, with a final examination, determine the final grade. Cr 1. Hernandez

*Sp 7/8. Practical Spanish* — Systematic training in correct pronunciation and usage, and in vocabulary building, with written and oral practice, phonetics and work in the laboratory. Well-qualified students who have not taken *Sp 7* may with permission elect *Sp 8*. Cr 3. Hernandez

(*Sp 109.110. Readings in Spanish Literature*) — A survey of the important periods and trends in Spanish literature with readings of representative works. Cr 3.

## MUSIC

Assistant Professor Puopolo (Discipline Representative); Instructor Bryant

Courses are offered in music literature, music fundamentals, music methods, and chorus. Plans are being formed to expand the music offerings as rapidly as feasible.

*Mc O 1.2. Chorus* — Open to all qualified students. Two meetings per week. Attendance at all rehearsals and public performances is required. May be repeated for credit each semester. Cr 1. Bryant

*Mc T 1. Fundamentals of Music* — Notation and terminology, scales and intervals, chords, ear training, elementary rhythmic and melodic dictation, sight singing. Open to all students. Cr 3. Puopolo

*Mc E 1. Music Methods for the Elementary Teacher* — A functional course covering the methods, content and materials of the elementary music program. Prerequisite: *Mc T 1* or consent of the instructor. Cr 3. Puopolo

*Mc L 1. Understanding Music* — A study of various types and forms of music as a means of increasing the student's awareness and understanding in listening to music. Representative selections from masterpieces of music are made familiar through listening and analysis. Open to all students. Cr 3. Puopolo, Bryant

*Mc H 1.2. Music History* — A study of music from antiquity to the present day. *Mc H 1* deals with the history of music up to about 1750; *Mc H 2* deals with the history of music from 1750 to the present day. Prerequisite: *Mc L 1* or consent of the instructor. Cr 3. Puopolo





## PHILOSOPHY

Professor MacLeod; Associate Professor F. Schwanauer; Assistant Professors Gavin (Discipline Representative), Grange.

Courses in philosophy are designed primarily to provide the student with sound principles of critical thinking, to help him acquire a knowledge of the development and problems of philosophic thought, and to lead him to formulate an intelligent view of the meaning and value of life in terms of his 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 his 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 he declares his major. The major will require 24 hours of courses beyond Pl 1.

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.

Any introductory course numbered Pl 1 is a prerequisite to all other courses in philosophy.

*Pl 1a. Introduction to Philosophy: Religion, Art, and Science in Philosophic Perspective* — Critical examination of these areas from a philosophic point of view. Problems to be considered include: science-religion controversy; humanistic and scientific ways of knowing; religion as primitive science; religion as art; aesthetic and religious experiences; task of philosophy in unifying the three areas. Cr 3. MacLeod

*Pl 1b. Introduction to Philosophy: Man and His Will* — Is there a human will at all? This course will concentrate on the issue of freedom vs. determinism. The importance of the human will insofar as it influences views of experience, politics, society, etc. will also be considered. Cr 3. Schwanauer

*Pl 1c. Introduction to Philosophy: The Myth of Certainty* — Why is man obsessed with certainty? Why does he try to see all issues in black/white categories? Suppose he admitted that the universe is radically uncertain? The course will focus on these issues, and attempt to indicate some consequences of giving up the quest for certainty. Cr 3. Gavin

*Pl 1d. Introduction to Philosophy: The Alienation of Man* — Why does modern man picture himself as alienated from nature and his fellowman? How did the problem of alienation come about? What possibilities exist for overcoming it? This course will deal with these issues, and attempt to suggest viable alternatives. Cr 3. Grange

*(Pl 101. History of Ancient Philosophy)* — Philosophic thought from pre-Socrates to the late Hellenistic period, with major emphasis on Plato and Aristotle. Cr 3. Offered in 1971-72. Gavin, MacLeod

*(Pl 102. History of Medieval Philosophy)* — The merger of the philosophic with the religious stream; ideas of Augustine, Thomas Aquinas, Duns Scotus, and others critically examined; determining cultural factors explored. Cr 3. Offered in 1971-72. Staff

*Pl 103. History of Early Modern Philosophy* — Main currents of rationalism and empiricism explored, as developed in major writings from Descartes to Hume. Cr 3. Grange

*Pl 104. History of Late Modern Philosophy* — Development of German idealism; emergence of social and scientific philosophies; contributions of Kant, Hegel, Schopenhauer, Bergson, and others. Cr 3. Schwanauer

*(Pl 105. Contemporary Philosophy)* — Main currents of contemporary philosophy — pragmatism, positivism, neo-scholasticism, phenomenology, dialectical materialism, existentialism. Cr 3. Offered in 1971-72. Staff

*Pl 106. American Philosophy* — History of philosophical ideas in America; particular emphasis given to contributions of Peirce, James, Royce, Dewey. Cr 3. Gavin

*(Pl 111. Ethical Theories)* — Critical evaluation of major ethical theories and systems. Extensive reading in original texts. Cr 3. Offered in 1971-72. MacLeod

*Pl 113. Aesthetics* — Inquiry into the question of whether the aesthetic experience is intelligible or emotional or both; examination of various theories and interpretations, classic and contemporary, of the nature of beauty, feeling, and the arts. Cr 3. Gavin

*(Pl 114. Philosophy of Religion)* — Analysis of the nature of religious experience, knowledge, and language. Special attention given to problems, classical and contemporary, exhibited in religious experience, and relevant to areas of common concern in the sciences, humanities, and philosophy. Cr 3. Offered in 1971-72. MacLeod

*Pl 115. Political Philosophy* — Critical evaluation of political philosophies, classical and contemporary; extensive reading in original texts. Cr 3. Grange

*(Pl 131. Symbolic Logic)* — Techniques of modern deductive logic; properties of formal systems; logical implications and paradoxes of language. Cr 3. Offered in 1971-72. Staff

*(Pl 141. Philosophy of Science)* — Nature of scientific explanation; clarification of methods and concepts in science such as cause, determinism, teleology, theory, law, probability, Cr 3. Offered 1971-72. Gavin



## PORTLAND

**Pl 152. Problems of Philosophy** — Consideration of selected problems or systems of philosophical significance, including general problems of metaphysics, epistemology, axiology, on specialized areas. *Cr 3.* Staff

**Pl 194. Seminar** — Advanced study for qualified students in small groups on a philosophical problem or system. Prerequisite: Advanced standing and consent of instructor. *Credit Arranged.* Staff

**Pl 196. Senior Tutorial** — 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. *Credit Arranged.* Staff

## SPEECH

Associate Professors Hansen (Discipline Representative), Whiting; Assistant Professors Duclos, Steele, Power.

Speech is not presently a major, but basic courses in the areas of Public Speaking, Interpretation, and Theatre are currently offered.

The aims of the curriculum are: to improve individual speech habits, leading to general improvement in oral communication; to train teachers of speech or those who are responsible for the direction of speech activities; to train people for certain professions (such as theatre and broadcasting) depending on the use of the voice. Usually last to be considered is the part played by speech in a broad liberal education. Within the speech field the more theoretical aspects of the curriculum (such as theory and history of the theatre, and history and theory of public address) provide the liberal aspects of education in terms of speech areas, and lend themselves most easily to integration with other areas.

**Sh 1. Fundamentals of Public Speaking** — An analysis of the problems of the beginning speaker, with emphasis on the selection and arrangement of material, audience analysis, and delivery. Classroom experience in the preparation and delivery of short speeches. *Cr 3.* Staff

**Sh 11. The Contemporary Theatre** — A critical examination of the state of the modern theatre, with emphasis on aesthetics. Includes correlation with the other arts. *Cr 3.* Not offered in Fall of 1970. Hansen

**Sh 16. Play Production** — An introduction to the responsibilities of the director and to the basic principles of stage directing, including choosing and analyzing plays, scheduling rehearsals, blocking action, and determining stage business. Backstage work on major and laboratory theatre productions will be required. *Cr 3.* Power, Steele

**Sh 17. Fundamentals of Acting** — The basic skills of acting, including the actor's internal preparation for playing a role and the development of his external techniques for projecting the role to his audience. *Lec 2, Lab 2, Cr 3.* Power, Steele

**Sh 41. Fundamentals of Interpretation** — An introduction to the art of interpretation to stimulate an understanding and responsiveness to literature and to develop the ability to convey to others, through oral reading, an appreciation of that literature. *Cr 3.* Staff

**Sh 166. Stage Directing** — Theory and practice in the staging of plays. Prerequisite: Sh 16 or permission of instructor. *Cr 3.* Power, Steele

**Sh 169. Theatre Laboratory** — Advanced laboratory work in the divisions of designing, lighting, or directing. The student may register, in different semesters, for credit in each of the divisions. Prerequisite: in designing, Sh 163 and permission; in lighting, Sh 164 and permission; and in directing, Sh 166 and permission. *Cr 2.* Staff

# School of Nursing

MARY ANN EELS, Director

Professor McLean; Associate Professors Cotton, Eells, Gray, Ivanisin, Roscoe; Assistant Professors Jensen, Maddox, Tryon; Instructors Dubowick, Edwards, Fish, Hammond, Lewis, Paige, Stone, Talbot, Tiedemann, Tukey

The School of Nursing offers a program of four years and one summer session which leads to the degree of bachelor of science with a major in nursing. One hundred and twenty hours are required for graduation with a minimum grade of C in all clinical nursing courses. Graduates are eligible to take the State Board Examination for licensure as registered nurses.

The program is accredited by the Maine State Board of Nursing. The School is a member of the National League for Nursing Council of Baccalaureate and Higher Degree Programs.

Students may be admitted to either the Portland or Orono campus or transfer from other campuses.

In addition to the usual University fees and expenses, nursing students must purchase uniforms (approximately \$90) during the sophomore year and provide themselves with a car during the senior clinical course in Community Health Nursing.

## Objectives of the Program

In order to prepare the student for nursing in today's world and for the future, the program at the University of Maine School of Nursing is designed to prepare a nurse who can: 1) make relevant, effective responses to the needs of people in providing direct care; 2) demonstrate an ability to work effectively to coordinate care in various settings; 3) identify her role as a professional nurse in the broad community.

## Philosophy

The Faculty believes that nursing is an art and a developing science which began with the simple acts of caring and curing. The essence of nursing is captured in the word "response." 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 comprise excellence in nursing care.

The Faculty further believes that adequate professional nursing preparation occurs within the climate of higher education. The practice of nursing stems from a theoretical base which concerns man in his biological, social, and cultural environment, and the utilization of this knowledge in nursing science.

## The Program

Because of the changing curriculum and the desire to individualize instruction the prospective student is urged to seek the advisor's assistance early in her academic career in order to plan her program of study.



# PORTLAND

a) The minimum requirement of the nursing major is 59 hours which must include the following:

Nu 01	The Role of the Nurse
Nu 02	Fundamentals of Nursing
Nu 100/Nu 101	Nursing of Adults
Nu 102/Nu 103	Nursing of Mothers and Children
Nu 104	Community Health
Nu 105	Community Health Nursing
Nu 106	Psychiatric Nursing
Nu 107	Comprehensive Nursing
Nu 108	Seminar in Nursing

b) In addition to the general education requirements of the University, the following courses are required and prerequisite to the clinical nursing courses:

Zo 3	Animal Biology
Sy 3	Introduction to Sociology
Py 1	General Psychology
A second course in Psychology	
Fn 152	Human Nutrition
One Mathematics course	Ms 19 Principles of Statistical Inference is recommended

## One semester course from Group A

Sy 4	Introduction to Sociology
Ay 1	Introduction to Anthropology
Ay 2	Introduction to Anthropology
Pol 1	Introduction to Government
Pol 2	Introduction to Government

## Eight hours from Group B

Ch 11/12	General Chemistry
or Ch 13/14	Chemical Principles
or Bc 7	Fundamentals of Chemistry
Bc 8	Elementary Physiological Chemistry

## Four hours from Group C

Zo 8	Anatomy and Physiology
Zo 10	Anatomy and Physiology
Zo 177	Animal Physiology

## Two semester courses from Group D

By 127	General Bacteriology
and	
By 128	Laboratory for General Bacteriology
or By 127	General Bacteriology
and	
By 21A	Elementary Microbiology Laboratory





## Course Descriptions

**Nu 01. *The Role of the Nurse*** — A survey of the current and expanding roles of the nurse.  
Cr 3. Eells, MacLean

**Nu 02. *Fundamentals of Nursing*** — Serves as a foundation for subsequent courses. The emphasis is on learning fundamental concepts and skills needed to provide professional nursing care for selected patients. Prerequisite: junior status or consent of instructor.  
Cr 3. Stone, Staff

**Nu 100/Nu 101. *Nursing of Adults*** (undergraduate only) — Basic nursing intervention required to meet the major health needs of adults. Emphasis on scientific principles underlying nursing action. Prerequisite: Nu 02. Cr 6,6. Talbot, Staff

**Nu 102/Nu 103. *Nursing of Mothers and Children*** (undergraduate only) — Family centered approach to nursing needs of parents and children with guided experiences in the field of maternal, infant, and child care in the hospital and community. Cr 6,6. Tryon, Staff

**Nu 104. *Community Health*** (undergraduate only) — Concepts and principles basic to the development and maintenance of community health. Includes theories of ecology, biostatistics, epidemiology, and the organization and delivery of health services to the community.  
Cr 3. Roscoe, Staff

**Nu 105. *Community Health Nursing*** (undergraduate only) — Concepts and selected field experiences essential to the understanding of the role of the nurse in the community. Prerequisite: Nu 100/Nu 101 and Nu 102/Nu 103. Cr 6. Roscoe, Staff

**Nu 106. *Psychiatric Nursing*** (undergraduate only) — Guided experience in the application of psychodynamic concepts to the nursing care of selected patients. Prerequisite: Nu 100/Nu 101 and Nu 102/Nu 103. Cr 6. Cotton, Staff

**Nu 107. *Comprehensive Nursing*** (undergraduate only) — Designed to increase the student's competency in providing complex nursing care and to assist her in applying administrative concepts in a leadership role. Prerequisite: Nu 100/Nu 101 and Nu 102/Nu 103. Cr 12. Stone, Staff

**Nu 108. *Seminar in Nursing*** (undergraduate only) — Current problems of the profession. Prerequisite: Nu 100/Nu 101 and Nu 102/Nu 103. Cr 2. Ivanisin

**Nu 199. *Reading Course*** (undergraduate only) — Individual study in an area of nursing with the permission of the instructor. Cr 2-3. Staff



# Science and Mathematics

HAIG H. NAJARIAN, Chairman

## BIOLOGICAL SCIENCES

Professor Najarian (Discipline Representative); Associate Professor Kern; Assistant Professors Greenwood, Holmes, Mazer, Mazurkiewicz

A four-year program is offered in biological sciences; and although the major is designed for students desiring graduate work in biology, or students interested in going into medicine, dentistry, or veterinary science, the program can be modified to satisfy requirements in other aspects of life science and para-medical fields.

The program includes 30 hours in biological sciences, among which the following are requirements:

Zo	3	Animal Biology
Bt	1	General Botany
Zo	136	Development Biology
Zo	162	Principles of Genetics
Zo	177	Animal Physiology

In addition to the general non-science requirements of the College of Arts and Sciences (Orono), the following courses are also required for a bachelor's degree in biological science at Portland:

Ms	12	Analytic Geometry and Calculus
Ch	13/14	Chemical Principles
Ch	151/152-161/162,	Organic Chemistry (with lab)
		or
Bc	1	Organic Chemistry and Bc 2, Biochemistry
Ps	1/2 or Ps 1a/a,	General Physics

**By 127. General Bacteriology** — A study of microorganisms with emphasis on their relationships to other forms of life. The physiological reactions associated with the metabolic activities of the single cells are discussed. The bacterium is viewed as a tool for biological research. Prerequisite: Ch 13. *Rec 2, Cr 3.* Holmes

**By 128. Laboratory for General Bacteriology** — A laboratory study of microorganisms to teach the basic procedures for isolation, characterization, and study of microscopic forms. Quantitation of bacterial processes is emphasized. Prerequisite: By 127. *Lab 4, Cr 2.* Holmes

**Bt General Botany** — An introduction to the structure, function, and reproduction of seed plants. Open to students of all colleges. *Rec 3, Lab 2, Cr 4.* Kern

**En 26. Introductory Entomology** — Fundamental principles of insect life and the relations of insects to plants, animals, and man. A study of structure, metamorphosis, ecology, and classification. Prerequisite: Bt 1 or Zo 3. *Lec 2, Lab 4, Cr 4.* Mazurkiewicz

**Zo 3. Animal Biology** — The principles of animal life, including properties of cells, heredity, evolution, and a review of major phylum types, including man. *Lec 3, Lab 3, Cr 4.5.* Kern, Staff

**Zo 8. Anatomy and Physiology** — The general principles of animal life, with emphasis on the structure and functions of the human body. Prerequisite: None. *Lec 2, Rec 1, Lab 2, Cr 4.* Kern

**Zo 12. Organic Evolution** — The biological development of higher forms of life from the simpler. The evidence which support this fact and the processes which bring it about. Open to all non-majors above freshman standing. *Lec 3, Cr 3.* Greenwood

**Zo 136. Developmental Biology** — The transformation of the fertilized egg into a new adult individual: the concepts of growth and development of organisms. Prerequisite: Zo 3 and Zo 162 or permission of instructor. *Lec 2, Lab 4, Cr 4.* Greenwood

**Zo 151. Histology** — Microscopic anatomy of animal tissues and methods of preparing biological material. Prerequisite: Zo 3. *Lec 2, Lab 4, Cr 4.* Holmes

**Zo 153. Invertebrate Zoology** — The morphology, physiology, life histories, phylogenetic relationship, and economic importance of invertebrates. Prerequisite: Zo 3. *Lec 2, Lab 4, Cr 4.* Najarian

**Zo 156. Animal Ecology** — The interrelationships between animals and their physical and biotic environment. Topics include essentials of existence, ecosystem concepts, energy relationships, populations, communities, distribution, adaptations, and applications. Prerequisite: Zo 3. *Lec 2, Lab 4, Cr 4.* Mazurkiewicz

**Zo 158. Animal Parasitology** — The life histories, economic importance, methods of control, host necropsy, and the preparation of parasites. Prerequisite: Zo 3. *Lec 2, Lab 4, Cr 4.* Najarian

**Zo 162. Principles of Genetics** — The nature of hereditary factors and the mechanisms by which they are transmitted and expressed. Prerequisite: Zo 3. *Lec 3, Cr 3.* Greenwood

**Zo 164. Genetics Laboratory** — Practical experience in the rearing of some genetically important laboratory species, and analysis of the resulting data. Prerequisite: Zo 162 or concurrently. *Lab 4, Cr 2.* Greenwood

**Zo 177. Animal Physiology** — Physiological processes in vertebrates with emphasis on the integration of organ systems. Prerequisite: Zo 3 or Zo 8 and at least one year of chemistry. *Lec 2, Lab 4, Cr 4.* Mazer

**Zo 178. General Physiology** — The vital phenomena common to all organisms; such as, metabolism, irritability, growth, conductivity. Membrane properties are treated at length. Prerequisite: Zo 3 or Zo 8, Organic Chemistry, one year of physics preferred. *Lec 2, Lab 4, Cr 4.* Mazer

**Zo 179. Experimental Endocrinology** — A comprehensive survey of the vertebrate endocrine glands and their functional relationships. The experimental approach is emphasized. Prerequisite: Zo 3 or Zo 8 and permission of instructor. *Lec 2, Lab 4, Cr 4.* Mazer

**Zo 180. Cell Mechanisms** — A physio-chemical analysis of cell processes. Emphasis on mechanisms controlling growth and division. Prerequisite: Zo 3, Organic Chemistry or Bio-chemistry. *Lec 2, Cr 2.* Holmes

**Zo 187.188. Problems in Zoology** — Open to juniors and seniors who have special interest and qualifications in some branch of zoology. Admission by permission of staff. *Cr Ar.* Staff

**Zo 195.196. Zoology Seminar** — Oral reports and discussion by class members, covering biological topics of current interest. *Rec 2, Cr 1.* Staff





Science Building

## CHEMISTRY

Associate Professors Smith (Discipline Representative), Sottery

Except for Ch 140 (Quantitative Analysis), students may complete the first two years of a chemistry major at the Portland campus. The freshman year offerings are identical to the common curriculum of technology students at Orono.

**Bc 21. Organic Chemistry** — A brief survey of those functional groups of organic compounds which are of interest for substances found in living systems. Minimal development of modern theories and an elemental introduction to applications of chemical spectroscopy. Laboratory work includes training in qualitative organic chemistry, chromatographic methods (gas-liquid, thin-layer, and column), simple kinetics studies of chemical reactions, and use of spectroscopic methods. Recommended only as a prerequisite for Bc 122. Prerequisite: Ch 12 or 14. *Rec 3, Lab 2, Cr 4.*

Smith

**Bc 122. Biochemistry** — An elemental and brief survey of the chemistry and biochemistry of carbohydrates, lipids, proteins, nucleic acids, and accessory compounds of metabolism. Some of the major metabolic pathways considered in a summarized manner, including glycolysis, and Krebs Cycle, urea cycle, fatty acid metabolisms, and protein synthesis. The application of the concepts of pH and buffers is studied. Laboratory work comprises qualitative and quantitative experiments on the various types of biochemical compounds, and elementary kinetic studies of enzyme action. Not recommended for those intending further studies in biochemistry. Prerequisite: Bc 21 or Ch 152. *Rec 3, Lab 2, Cr 4.*

Smith

**Ch 11/12. General Chemistry** — Selected topics in chemistry. Present concepts explored in terms of historical development and philosophical significance. Qualitative understanding is stressed rather than quantitative application. Recommended for students who wish to enhance their understanding and appreciation of the role of physical science in the modern world. (Previous study of chemistry is not assumed.) *Rec 3, Lab 3, Cr 4.*

Sottery

**Ch 13/14. Chemical Principles** — An intensive examination of modern chemistry, comprising structural theory (atomic and molecular levels), stoichiometry, kinetics and equilibrium, colligative properties, elementary thermodynamics, ionic equilibria, and electrochemistry. A strong mathematical background is essential for mastery of this course. Laboratory work includes qualitative and quantitative experiments intended to illustrate lecture presentation. Recommended for students who plan further study in science or engineering. *Rec 3, Lab 3, Cr 4.* Smith

**Ch 151/152. Organic Chemistry Lecture** — An introduction to the chemistry of carbon compounds. Modern theories of reaction mechanisms are stressed. Recommended for majors in chemistry, and biological sciences. Prerequisite: Ch 14. *Rec 3, Cr 3.* Sottery

**Ch 161/162. Organic Chemistry Laboratory** — An introduction to laboratory techniques used for the synthesis and study of organic compounds. Prerequisite: Credit or concurrent registration in Ch 151/152. *Lab 4, Cr 2.* Sottery

## ENGINEERING

Associate Professors Hopkinson, Kirwin (Discipline Representative)  
Assistant Professor Un

The Portland campus offers the first common year of engineering (the curriculum being identical to that of a prospective chemistry major or technology student), and the second year for electrical engineering students, as well as a master's degree in engineering (administered through the C.E.D. Division).

**Ge 1/2. Introduction to Engineering Design** — Creative exercises in multi-view drawing using freehand and instrumental techniques. Course 2 introduces pictorial drawing, descriptive geometry, and concludes with the preparation of working drawings for an elementary design problem requiring creative thinking. *Rec and Lab 4, Cr 2.* Hopkinson

**Ge 5/6. Technology Orientation** — 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. *Rec 1, Cr 0.* Hopkinson

**Ge 7. Computer Programming for Engineers** — Digital programming using Fortran IV language and appropriate numerical methods for the solution of applied problems involving roots of equations, numerical integration, and matrix algebra. Last five weeks of the semester devoted to analog computer exercises, including time and magnitude scaling. Prerequisite: Ms 28 (may be taken concurrently). *Rec 1, Lab 2, Cr 2.* Kirwin

**Me 52. Applied Mechanics, Dynamics** — A study of motion of particles and rigid bodies; force, mass and acceleration; work and energy and simple harmonic motion. Prerequisite: Me 50, Ms 28. *Rec 3, Cr 3.* Hopkinson

**Me 55. Statics and Strength of Materials** — 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. Prerequisite: Ms 28. *Rec 3, Cr 3.* Hopkinson

**Ee 1. Circuit Analysis I** — Basic laws and theorems of electric circuits; solution of circuits represented by first and second order differential equations. Prerequisite: Ps 2 and Ms 27. *Rec 4, Comp. or Lab 3, Cr 5.* Kirwin

**Ee 2. Circuit Analysis II** — Phasor solution of a-c circuits and coupled circuits; balanced three-phase systems; introduction to complex frequency. Prerequisite: Ee 1. *Rec 3, Cr 3.* Kirwin

**Ee 12. Basic Electrical Laboratory** — Use of techniques developed in Ee 1, 2 for the analysis of circuits containing linear, nonlinear, passive and active elements; includes analysis of simple electronic circuits and the use of the oscilloscope. Prerequisite: Ee 2 required concurrently. *Rec 1, Lab 3, Cr 2.* Kirwin



## GEOLOGY

Professor Trefethen (Discipline Representative)

Only two courses are offered, both open to all students and without prerequisite.

*Gy 1a. Physical Geology* (Descriptive) — A study of earth materials and processes, volcanism, mountain building, the work of seas, streams, ice, and winds. Two afternoon field trips. *Lec 3, Cr 3.* Trefethen

*Gy 2a. Historical Geology* — The geologic history of the earth and the development of life upon it. One one-day field trip. *Lec 3, Field Trip, Cr 3.* Trefethen

## MATHEMATICS

Professors Canty, Rogers (Discipline Representative); Associate Professors Brown, Guay; Assistant Professors Chabot, Foster, Mainville (leave of absence 1970-71)

A four-year program leading to the B.S. degree in mathematics is offered, as well as offerings to meet the needs of several types of undergraduate and graduate students.

During the first two years a mathematics major takes the following courses: Ms 12, 27, 28, 29, 122, and Ge 7. During the third and fourth years a mathematics major will:

1. Successfully complete three courses from the following four areas: Ms 130, Ms 171, Ms 173, Ms 175 or Ms 176. Only one of Ms 175, Ms 176 (not both) will satisfy this requirement.
2. Successfully complete other approved courses to accumulate a minimum four-year total of 39 credit hours in mathematics.

Mathematics courses Ms 1, Ms 2, Ms 3, Ms 5, Ms 6, Ms 7, Ms 8, Ms 9, Ms 10, Ms 13, Ms 14, Ms 15, Ms 16, Ms 17, Ms 19, and Ms 20 are not creditable toward the 39 credit hour minimum.

Students intending to pursue graduate work in mathematics are strongly urged to take Advanced Calculus and Abstract Algebra and to satisfy their language requirement by taking French, German, or Russian.

## COURSE DESCRIPTIONS

*Ms 2. Elementary Functions and Analytic Geometry* — A study of the polynomial, logarithmic, and exponential and trigonometric functions; equations, inequalities, Cartesian and polar coordinate systems, and the related analytic geometry. The unifying role of the function concept and the interplay of algebra and geometry are emphasized. Prerequisite: two years of high school algebra. *Cr 3.*

*Ms 5/6. Elements of College Mathematics* — Modern viewpoints on certain basic mathematical materials. Intended primarily for non-mathematics majors. *Cr 3.*

*Ms 12. Analytic Geometry and Calculus* — Equations and graphs, differentiation and integration of polynomials, applications. Prerequisite: Trigonometry and the equivalent of Ms 3. *Cr 4.*

*Ms 13. Elementary Analysis* — A unified treatment of the elementary functions of analysis; their analytical properties including derivatives, integrals, and series. Prerequisite: Three years high school college prep math. *Cr 3.*

**Ms 14. Elementary Probability** — Elements of probability using discrete and continuous sample spaces. Common probability laws; expected values; introduction to estimation and hypothesis testing. Prerequisite: Ms 12 or 13. Cr 3.

**Ms 15. Analysis and Statistics** — Some calculus of functions of more than one variable, partial differentiation; optimization; multiple integration; sampling distributions; estimation; hypothesis testing; introduction to regression analysis and analysis of variance. Prerequisite: Ms 14. Cr 3.

**Ms 16. Linear Systems** — An introduction to vectors, matrices, linear systems of algebraic and differential equations; interpolation procedures and difference equations; linear programming and Markov processes. Prerequisite: Ms 15. Cr 3.

**Ms 19. Principles of Statistical Inference** — An introductory course including such topics as distributions sampling variability, estimation, hypothesis testing, and regression. Cr 3.

**Ms 20. An Introduction to Computer Systems** — 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. Prerequisite: Familiarity with the content of three years of high school college preparatory mathematics. Cr 3.

**Ms 27. Analytic Geometry and Calculus** — Conic sections; differentiation and integration of algebraic, trigonometric, logarithmic and exponential functions; applications. Prerequisite: Ms 12 or consent of the department. Cr 4.

**Ms 28. Analytic Geometry and Calculus** — Polar coordinates; geometry of three dimensions, infinite series, partial derivatives, multiple integrals; applications. Prerequisite: Ms 27. Cr 4.

**Ms 29. Differential Equations** — An introduction to ordinary differential equations; applications. A brief introduction to partial differential equations and Fourier series. Prerequisite: Ms 28. Cr 4.

**Ms 29a. Differential Equations** — An introduction to ordinary differential equations; applications. Prerequisite: Ms 28. Cr 3.

**Ms 103. Linear Programming I** — Formulation of the general linear programming problem, homogeneous and non-homogeneous linear equalities, and simplex methods. Prerequisites: Ms 124, Ms 172, or permission. Cr 3.

**Ms 122. The Structure of the Real Number System** — Development of the arithmetic and order properties of the integers, rational, and real numbers. Division algorithm, well-ordering, mathematical induction, fundamental theorem of arithmetic, sequences and series, and consequences of the completeness property of the real numbers. Prerequisite: Ms 27. Cr 3.

**Ms 124b. Linear Algebra** — An introduction to the theory of vector spaces and linear transformations. Prerequisite: Ms 28. Cr 3.

**Ms 171. Introduction to Abstract Algebra** — Algebraic structures such as groups, rings, integral domains, and fields. Prerequisites: Ms 21 and Ms 22; or Ms 122. Cr 3.

**Ms 173. Advanced Calculus** — Functions of real variables, limits, infinite series, partial differentiation, and other topics. Prerequisites: Ms 21 and 22; or Ms 122; Ms 28. Cr 3.

**Ms 175/176. Higher Geometry** — An introduction to various geometries, such as projective and non-Euclidean. Prerequisite: Ms 28. Cr 3.

**Ms 196. Selected Topics** — Advanced topics in mathematics not regularly covered in other courses. Prerequisite: Consent of instructor. Cr 3.

**Ms 277. Topology** — An introduction to fundamental concepts in topology. Prerequisite: Ms 173, 174 or consent of the instructor. Cr 3.





## PHYSICS

Associate Professor Walkling (Discipline Representative);  
Assistant Professor Armentrout

A physics major is not offered at the Portland campus. A student beginning Ps 1/2 in the fall semester of 1970 may expect to complete the first two years of a physics major, after which he must transfer to the Orono campus to complete his program.

Students intending to major in physics should normally register to take Ps 1/2, Ms 12, and Ms 27 as freshmen. Since the degree program is currently completed in Orono, the degree requirements outlined in the Orono catalog will apply to all physics majors.

**Ps 1/2. General Physics** — The fundamentals of mechanics, sound, heat, electricity, magnetism, light, and modern physics. The course meets the needs of engineering and science students. Calculus will be used. *Lec with Dem 2, Rec 2, Lab 2, Cr 4.*

**Ps 1a/2a. General Physics** — The fundamentals of mechanics, sound, heat, electricity, magnetism, light and modern physics. Similar to Ps 1/2 but with less emphasis on computations. Elementary calculus will be used occasionally. Meets the needs of pre-dental and pre-medical students. *Lec with Dem 2, Rec 2, Lab 2. Cr 4.*

**(Ps 3. Descriptive Physics)** — 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. *Lec with Dem 3, Cr 3.* Not offered 1970-71.

**Ps 17/18. Intermediate Physics** — A more mathematical treatment (with the calculus) of many of the topics in courses Ps 1/2 or Ps 1a/2a, either of which is a prerequisite. (With special permission, students may register for this course under the number Ps 17a.18a without laboratory for three credit hours.) *Lec 2, Comp 2, Lab 2, Cr 4.*

**Ps 36. Introductory Modern Physics for Engineers** — Selected topics in molecular, atomic, electronic, and nuclear physics, intended to meet the needs of the present-day engineering student. College physics, calculus, and some chemistry are prerequisite. *Lec 2, Rec 1, Cr 3.*

## PSYCHOLOGY

Professor Saldanha (Discipline Representative); Associate Professors Bishop, Sanborn; Assistant Professors Hearn, Van Hemel

The discipline 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, its research finds, 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.

The minimum requirement for a major in the discipline is 36 hours (and not to exceed 48 hours), which must include the following:

Py 1/2	General Psychology
Py 45	Principles of Experimental Psychology
Py 74	Seminar in Issues in Contemporary Psychology
Py 141	Statistics in Psychology
Py 171	History and Systems of Psychology

In addition, each major is required to take at least two courses from each of the following two groups:

Group 1:	Py 151	Psychology of Motivation
	Py 155	Psychology of Learning
	Py 156	Theories of Learning
	Py 161	Sensation and Perception
	Py 165	Physiological Psychology
Group 2:	Py 130	Social Psychology
	Py 133	Abnormal Psychology
	Py 138	Theories of Personality
	Py 143	Psychological Test Theory and Individual Differences

**Py 1/2. General Psychology** — A general introduction to the science of behavior. Topics discussed include physiological bases of behavior, sensation and perception, motivation, learning, thinking, intelligence, personality, social behavior, and behavior disorders. Cr 3. Saldanha

**Py 45. Principles of Experimental Psychology** — General principles, methods and techniques of experimental psychology. Applications of general methodology and specific techniques to major problem areas in behavioral research. Laboratory exercises provide experience in collecting and reporting data. Prerequisite or to be taken concurrently: Py 141. Rec 2, Lab 2, Cr 3. Hearn

**Py 74. Seminar in Issues in Contemporary Psychology** — A review of some of the current theoretical issues and research findings in the general areas of psychology. Seniors only. Cr 3. Hearn, Van Hemel

**Py 111. Industrial Psychology** — Applications of psychological principles, facts, and research methods to problems of selection, placement, efficiency, equipment design, training, motivation, and morale in industry. Cr 3.

**Py 123. Psychology of Childhood** — A systematic study of the child's behavior and psychological development. Emphasis upon principles underlying development, methods of child study, and practical implication. Cr 3. Bishop, Sanborn



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**Py 124. *Psychology of Adolescence*** — 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. *Cr 3.* Sanborn

**Py 128. *Psychology of the Exceptional Child*** — A consideration of the development and behavior of the exceptional child. Special emphasis on the practical problems related to the management of children with intellectual, emotional, orthopedic, sensory, and academic handicaps. Prerequisite: Py 123. *Cr 3.*

**Py 130. *Social Psychology*** — A study of social factors in psychology and psychological factors in society with particular reference to the psychology of social attitudes, prejudice, propaganda, group dynamics, and selected social problems. *Cr 3.* Bishop

**Py 133. *Abnormal Psychology*** — The origin, development, and manifestation of the psychoneuroses and major psychoses with a view to better understanding of adjustment. Emphasis on the biological, social, and psychological determinants of maladjusted behavior. Prerequisite: Py 1/2 with grade of C or better. *Cr 3.* Bishop

**Py 138. *Theories of Personality*** — A survey of the chief contemporary approaches to the study of personality. Critical issues in personality. Consideration of assessment techniques and research methods. Prerequisite: Py 1/2 with grade of C or better. *Cr 3.* Bishop

**Py 141. *Statistics in Psychology*** — A general introduction to the techniques of descriptive and sampling statistics. Emphasis will be placed on measures of central tendency, variability, correlation, hypothesis testing, tests of significance, and simple analysis of variance. Prerequisite: Py 1/2. *Cr 3.* Hearns

**Py 143. *Psychological Testing*** — The psychological testing of intelligence, aptitudes, interests, and personality. Principles of test construction and administration, the theory of test scores, and the practical utilization of test data will be considered. Prerequisite: Py 141 or equivalent. *Cr 3.* Bishop

**Py 151. *Psychology of Motivation*** — A survey of theory, research methodology, and experimentally obtained facts related to the activation and direction of behavior. Laboratory exercises provide experience in collecting and reporting data. The course requires planning and conducting an original investigation by the student. Prerequisite: Py 45. *Rec 2, Lab 2, Cr 3.* Van Hemel

**Py 155. *Psychology of Learning*** — A survey of the basic principles that underlie the acquisition and retention of new behavior. Emphasis in laboratory work is on the execution and analysis of experiments on animal and human learning. Prerequisite: Py 45. *Rec 2, Lab 2, Cr 3.* Van Hemel

**Py 156. *Theories of Learning*** — An examination of the most important current psychological theories concerning the nature of the learning process, including the behavioristic (Guthrie, Skinner, Hull, and Estes) and the Gestalt (Lewin and Tolman) position. An evaluation of the theories will be made. Prerequisite: Py 155. *Cr 3.* Saldanha

**Py 161. *Sensation and Perception*** — Laboratory studies of selected sensory and perceptual processes. Emphasis on experimental methods, including information-processing approaches, research findings, and theoretical interpretations. Prerequisite: Py 45. *Rec 2, Lab 2, Cr 3.* Hearns

**Py 165. *Physiological Psychology*** — Neuroanatomy, neurophysiology, and endocrinology considered in their relation to various behavioral processes. Special emphasis on examination of recent research studies. Prerequisites: Zo 3/4, Py 45. *Cr 3.* Van Hemel

**Py 171. *History and Systems of Psychology*** — An historical account of the development of psychology; the development of psychological concepts and points of view prior to Wundt; a consideration of the major modern systems and schools of psychology. Prerequisite: Py 45 or permission. *Cr 3.* Saldanha

**Py 190, 191. *Problems in Psychology*** — Opportunity to carry out an independent study or a particular research problem under supervision. *Per. Cr. Arr.* Staff

# Social Sciences

PHILLIP A. COLE, Chairman

## EDUCATION

Associate Professors Rhoades (Discipline Representative), Soule; Assistant Professors Chronister, Colucci; Instructors Moore, Smith

Education, a discipline within the Social Science Division, 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. The program includes 50 hours or more of general education (preferably completed by the end of the sophomore year), an academic area of concentration, and professional courses appropriate to the level. This reflects the goal of producing teachers with a rather broad background, knowledge in some depth of a limited area, and techniques or skills to put this material across to the pupil or student.

At present, the Portland campus offers a teacher-training program that is approved for secondary level only. Many have been able to meet requirements for elementary level, but methods courses unique to elementary preparation are offered only through the Continuing Education Division (late afternoon, evenings, and Saturdays) with no guarantee that required courses will be provided to meet a particular student's need at a given time.

Areas of academic concentration (for secondary teachers) that can be completed include English, biology, social studies, mathematics, French, and the general science teacher program.

Each student, whether enrolled in the College of Education or in another college of the University, who plans a teaching career needs to complete an activity referred to as the Exploratory Field Experience. This program requires that all students, prior to the completion of their sophomore year, spend no less than one week of observation in a public school classroom. This requirement may be met at any time the University is not in session, but when the public school is in session. The student will serve as an assistant staff member (teacher aid) in addition to observing in the classroom. He will be under the jurisdiction of the school, like any regular staff member, although no compensation is given. This is not a student teaching experience but one which serves to familiarize the student with some of the responsibilities of a full-fledged teacher.

The culminating phase of teacher preparation is student teaching, which involves full-time classroom work in a public school over an eight-week period, during which the student is supervised by the regular classroom teacher and by a supervisor from the College of Education.

Students in education must obtain a 2.0 (C) average or better in the academic concentration area, a 2.0 average or better in the professional courses, and a 2.0 average or better in overall grade point average before the degree will be awarded.

Master of Education: In the fall of 1967, the Portland campus initiated a limited M.Ed. Program, with academic areas of concentration in English, history, and mathematics. Courses have been arranged so that all requirements may be met on the Portland campus. These graduate programs are intended to expand the preparation of the teacher. For those who wish to prepare themselves for such specialized areas of school service as administration, supervision or guidance, several appropriate courses are available at Portland, but such programs must be completed at the Orono campus. Eligibility for admission to programs leading to the master of education degree is based upon the completion of an approved teacher education program appropriate to the graduate program requested.



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Specific information regarding aspects of the education program may be obtained from the Education Secretary (204 Payson Smith) or from any member of the education faculty.



**Ed B 2. *The American School*** — Examines the nature, role, purposes, and curriculum of elementary and secondary schools, with special attention to the place and function of the teacher within this social institution. This is one of the courses prerequisite to student teaching in all regular undergraduate programs. Not open to freshmen. Cr 3.

**Ed B 3. *Growth-Learning Process*** — The pupil and his learning processes, including learning theories, pupil growth patterns, and selected techniques for the study of pupil development. This is one of the courses prerequisite to student teaching in all regular undergraduate programs. Not open to freshmen or sophomores. Cr 3.

**Ed B 4. *The Teaching Process*** — Styles of teaching based on cognitive and non-cognitive foundations of education are examined. This is one of the courses prerequisite to student teaching in all regular undergraduate programs. Not open to freshmen or sophomores. Cr 3.

**Ed M 190. *Full-Day Student Teaching (Elementary)*** — A full-day, off-campus internship program in a selected school for one half of the semester; a full-day on-campus program of college courses is provided for the other half of the semester. Special conferences and group discussions as required. Prerequisites: Ed B 2, Ed B 3, Ed B 4 or their equivalents, two methods courses, one of which shall be in reading and senior standing. Cr 6.

**Ed M 191. *Full-Day Student Teaching (Secondary)*** — A full-day, off-campus internship program in a selected school for one half of the semester; a full-day, on-campus program of college courses is provided for the other half of the semester. Special conferences and group discussions as required. Prerequisites: Ed B 2, Ed B 3, Ed B 4, or their equivalents, methods course, and senior standing. Cr 6.

## HISTORY

Professor Cole (Discipline Representative); Associate Professors Connick, Hunt; Assistant Professors Albee, Cannon, Witmore, Dietrich

The courses offered by the history discipline are intended to provide a 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.

History majors find employment in all fields, including business. Specialization in history is especially valuable as pre-professional training for law, government, diplomacy, theology, journalism, and for library, archival, and museum administration. The history major must complete: (1) either Hy 3.4 or Hy 3a/4a; (2) Hy 5.6; (3) either Hy 115.116 or Hy 147.148; (4) Hy 190 (preferably in the sophomore or junior year), and at least 18 hours of advanced history courses approved by his adviser.

It is recommended that students balance their course selections among categories A, B, and C.

## CATEGORIES

A	B	C
United States	Europe	Asia and Latin America
3.4	1.2	115.116
3a/4a	5.6	135.136
10	101.102	137
159.160	103.104	138
161	107	139.140
162	108	147.148
165	109	149
166	110	150
167	111.112	151
168	121.122	152
169	123.124	
170	129.130	
171.172	131.132	
173.174	133.134	
175.176	141.142	
178	155.156	
182	230	
183		
186		
188		
189		
270		

(Hy 1.2. *Classical and Medieval Civilization*) — The social and cultural development of the ancient Greeks and Romans is treated in first semester. The second semester deals with the social and cultural development of Western Europe in the Middle Ages. Particular attention is given to the great achievements in literature, philosophy, religion, and art. This course satisfies the humanities requirement of the College of Arts and Sciences. Cr 3.



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*Hy 3.4. United States History* — From 1789 to recent years. The development of democracy, growth of the West, slavery and sectionalism, the Civil War, Reconstruction, the making of modern America, industrialization, imperialism, and other topics. *Cr 3.*

*Hy 3a.4a. United States History* — The origin and development of American institutions from colonization to the present. Institutional models (e.g. — the family, business, education, etc.) will be presented and their development traced to 1900 in the first semester and to the present in the second semester. *Cr 3.*

*Hy 5.6. History of Western Europe* — Europe and its civilization from the decline of the Roman Empire to the present. Emphasis on the development of those political, economic, and social institutions that help to explain our present-day civilization. *Cr 3.* Cole

*Hy 10. History of Maine* — A survey of Maine's social, economic, and political life from primitive times to the present. After a brief study of Indian life preceding white settlement, the periods of colonial, provincial, and state history are covered. *Cr 3.* Jordan

*(Hy 101.102. Ancient History)* — The political, social, and economic history of the civilizations of the ancient Mediterranean world. Egypt, the Near East, and Greece will be studied in the first semester; Rome will be covered in the second semester. *Cr 3.* Duclos, Goodell

*(Hy 103.104. The Middle Ages)* — Europe from late antiquity through the Renaissance. Special emphasis on the Carolingian Empire; the origin, development, and structure of feudalism; the medieval church and state; medieval theology and philosophy; and the coming of the Renaissance. Prerequisite: *Hy 5* or permission. *Cr 3.*

*(Hy 107. The Renaissance and Reformation)* — The political, social, economic, and cultural achievements of Europe in the period 1300-1650. The Protestant revolt, the Catholic reform, and the wars of religion will be evaluated. Prerequisite: *Hy 5.6* or permission. *Cr 3.*

*(Hy 108. Europe in the 17th Century)* — The major political and intellectual developments of the period will be emphasized. The special histories of each European state will be subordinated to the general problems of state-building, the growth of capitalism and political absolutism, and the diplomacy and wars of Europe as a whole. Prerequisite: *Hy 5.6* or permission. *Cr 3.*

*(Hy 109. Europe in the 18th Century)* — The history of the Continent from 1715 through the Congress of Vienna. Emphasis on the Enlightenment, the Enlightened Despots, and the origins of the French Revolution. The impact and spread of French revolutionary thought throughout Europe, and the influence of the personality and military campaigns of Napoleon on the Continent. Prerequisite: *Hy 5.6* or permission. *Cr 3.*

*(Hy 110. Europe in the 19th Century)* — The history of the Continent from 1815 through the Franco-Prussian war. Liberalism and nationalism, reaction and revolution, socialism and imperialism. The impact of the unification of Germany and Italy on the politics and diplomacy of the Continent. Prerequisite: *Hy 5.6* or permission. *Cr 3.*

*(Hy 111.112. Europe Since 1870)* — The effect of industrialization, the emergence of the masses, the rise and fall of colonial empire, and the impact of two world wars. Irrationalist philosophies on the creation of fascism and communism, the recasting of democracy, the development of the European state system, and the economic integration of the continent. Prerequisite: *Hy 5.6* or permission. *Cr 3.* Albee

*Hy 115.116. East Asian Civilizations* — Selected topics in the development of Chinese, Korean, and Japanese societies from earliest times to today. *Cr 3.* Dietrich

*(Hy 121.122. History of France)* — A survey of French history treating the political, social, economic, and cultural development of the nation. The first semester will span the period from the formation of the French monarchy through the French Revolution and Napoleon. The second semester will cover the period 1815 to the present. Prerequisite: *Hy 5.6* or permission. *Cr 3.*

(Hy 123.124. *History of Russia*) — Russian history from the earliest times to the present. The first semester will treat the political, social, economic, and intellectual development of Tsarist Russia to the end of the Napoleonic Wars. Second semester: 19th century Russia, the decay of the Tsardom, the Bolshevik Revolution, and the subsequent internal development and expansion of the Soviet Union. Prerequisite: Hy 5.6 or permission. Cr 3. Albee

(Hy 129.130. *Economic History of Europe*) — The economic history of Western Europe in the medieval and modern periods. Agriculture, feudalism, towns and guilds, mercantilism, capitalism, and industrialism. Prerequisite: Hy 5.6 or permission. Cr 3.

(Hy 131.132. *Germany Since 1648*) — The rise of Prussia, the unification of Germany, the Weimar era, the National Socialist period, and the Bonn Republic. Stress is given to political, economic, and intellectual developments. Prerequisite: Hy 6 or permission. Cr 3.

(Hy 133.134. *European Diplomatic History*) — A survey of the diplomatic history of modern Europe emphasizing the national foreign policies of the major European powers and changing concepts of international relations. Prerequisite: Hy 6 or permission. Cr 3.

(Hy 135.136. *History of China*) — First semester: the development of Chinese ideas, institutions, and technology from neolithic times until the eve of Western expansion into Asia. Second semester: aspects of China's adjustment to the modern world up to the mid-1960's. Prerequisite: Hy 115.116 or permission. Cr 3.

(Hy 137. *History of Modern Japan*) — The history of Japan during the past century, with major focus on the Western penetration, the influence of Western ideas on traditional Japanese culture, the emergence of the modern Japanese industrial state, and the rise and defeat of the Japanese empire. Prerequisite: Hy 115.116 or six hours of history or permission. Cr 3.

(Hy 138. *Problems of Southeast Asia*) — An analysis of European imperialist rivalries in the area, together with a consideration of the special problems of the new nations recently emerged from colonialism. The background of the French and the American presence in Vietnam will also be treated. Prerequisite: Hy 115.116 or six hours of history, or permission. Cr 3.

(Hy 139.140. *The Middle East*) — The Middle East in modern times, with special emphasis on the impact of the West in terms of political, economic, and cultural change. Prerequisite: six hours of history. Cr 2.

(Hy 141.142. *The British Commonwealth*) — A survey of the modern British Commonwealth. First semester: the history, contemporary position, and problems of Canada, the West Indies, and British Africa. Second semester: the Commonwealth countries in Asia and the Pacific. Prerequisite: Hy 5.6. or Hy 155.156. Cr 3.

(Hy 147.148. *Hispanic America*) — The Spanish and Portuguese colonial empires in America from their establishment to the achievement of independence in the early 19th century. Second semester: the national period of Hispanic America and an analysis of the contemporary problems and tensions of the area. Prerequisite: No freshmen. Cr 3. Connick

(Hy 149. *Argentina, Brazil, and Chile*) — A history of the major countries of South America from their independence in 1823 to the present. Primary emphasis on their social structures, political developments, and international relations. Prerequisite: Hy 148 or permission. Cr 3.

(Hy 150. *Mexico*) — A history of Mexico from early times to the present. Emphasis on the social and political structure of Mexico, the Mexican wars of independence, and the revolutionary movements of the 20th century. Prerequisite: Hy 148 or permission. Cr 3.

(Hy 151. *Latin America and the United States*) — 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: six hours of history. Cr 3.



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(Hy 152. *Problems of Latin America*) — An analysis and evaluation of contemporary Latin American problems. The internal tensions and international relations of the several countries. The rise, spread, and development of Castroism in the area. Prerequisite: six hours of history or permission. Cr 3.

(Hy 155.156. *History of England*) — A general survey of the political, social, economic, and constitutional aspects of English history. Special attention to trial by jury, the evolution of Parliament, the Protestant revolt, the commercial and industrial revolutions, and the growth of political and economic democracy. Prerequisite: Hy 5.6 or six hours of history. Cr 3. Albion

(Hy 159.160. *History of Canada*) — Canada's history from the earliest settlements in New France to the present. 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: Hy 3.4, 3a/4a or Hy 5.6, or sophomore standing, or permission. Cr 3.

(Hy 161. *American Colonial History*) — 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-semester emphasizes social and intellectual topics (e.g. — religion, law, medicine, painting, literature, and music). Prerequisite: Hy 3.4 or 3a/4a or permission. Cr 3. Cannon

(Hy 162. *The American Revolution*) — 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. Prerequisite: Hy 3.4 or 3a/4a or permission. Cr 3. Cannon

(Hy 165. *Hamilton and Jefferson*) — 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. Prerequisite: Hy 3.4 or 3a/4a or permission. Cr 3.

(Hy 166. *The Age of Jackson, 1815-1850*) — A consideration of American political, cultural, social, and economic development in the first half of the 19th century. Specific topics will include the controversies surrounding Jacksonian democracy, the Bank of the United States, internal improvements, the tariff, "Manifest Destiny," and the sectional-slavery issue. Prerequisite: Hy 3 or 3a or permission. Cr 3.

Hy 167. *Civil War and Reconstruction, 1850-1877* — The crucial decade of the 1850's, emphasizing the role of the slavery issue in creating sectional anxieties and hostilities and undermining the American political system; secession and the coming of war; the military, political, diplomatic, and economic aspects of the Civil War; and the challenges and ultimate failure of reconstruction in the post-bellum period. The role played by Abraham Lincoln in the Civil War era will receive particular attention. Prerequisite: Hy 3, 3a or permission. Cr 3. Hunt

(Hy 168. *The Gilded Age in America, 1877-1914*) — 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 America city, new directions in social thought, concentration of industrial wealth and financial power, and American foreign policy. Prerequisite: Hy 4, 4a or permission. Cr 3.

Hy 169. *Early 20th Century America, 1900-1938* — The Spanish-American War and the new imperialism, the progressive movement and the Wilsonian reforms, and America's entry into World War I will be treated. So too will be the return to isolationism, the "Roaring Twenties," the origin and dilemmas of the Great Depression, and the coming of the New Deal. Prerequisite: Hy 4, 4a or permission. Cr 3. Connick



*Hy 170. America Since 1938* — An analysis of FDR and the New Deal, together with a consideration of America's road to Pearl Harbor, World War II, the Cold War, the Fair Deal, the New Frontier, and the Great Society. Special attention will also be paid to the problems of an affluent society and to the civil rights movement of the 1960's. Prerequisite: Hy 4, 4a or permission. Cr 3. Connick

*(Hy 171.172. Economic History of the United States)* — From the colonial period to the present with special attention to the problems raised by the economic evolution of the nation. Prerequisite: Hy 3.4 or 3a/4a or permission. Cr 3.

*Hy 173.174. American Diplomatic History* — American diplomatic history from the revolution to the present with emphasis on the formation and application of America's major foreign policies. Prerequisite: Hy 3.4, 3a/4a or permission. Cr 3. Peirce

*Hy 175.176. American Social and Intellectual History* — Social and cultural developments as reflected in philosophy, literature, religion, science, politics, and economics. Prerequisite: Hy 3.4, 3a/4a or permission. Cr 3.



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**Hy 178. *History of the American Frontier*** — The frontier is approached conceptually through a detailed study of the Turner thesis, the historiographical controversy, the study of historical geography, and the frontier as symbol and myth. Two "case histories" are presented as in-depth examples of the frontier experience: first, the Northern Colonial Frontier, and second, the Far Western Frontier. Prerequisite: Hy 3.4, 3a/4a or permission. Cr 3.

**Hy 182. *Naval History*** — The influence of sea power on history with major emphasis on the Anglo-American naval tradition since 1750, Naval strategy, tactics, operations, and administration will be evaluated during the period of naval growth (1775-1900) and in the subsequent era of the battleship and the fast carrier attack force. Anglo-American naval operations in World War I, World War II, Korea, and Vietnam will be specially considered. Prerequisite: Hy 3.4, 3a/4a, or permission. Cr 3.

**Hy 183. *Maritime History*** — Ships and trade from colonial days to the present. Emphasis on famous ships and ship builders, the evolution of ships from sail and wood to steam and steel, the effect of the Civil War and two world wars on the American merchant marine, and the relationship between the United States Navy and the merchant service. Prerequisite: Hy 3.4, 3a/4a or permission. Cr 3.

**(Hy 186. *Urban History of the United States*)** — An evaluation of special topics in the rise of the city in America and the development of urban patterns of life. Attention will focus on such subjects as the population shift to the cities, the development of slums and ghettos, the growth of municipal institutions and services, and the relationship of government with city dwellers. Prerequisite: Hy 3.4, 3a/4a or permission. Cr 3. Whitmore

**(Hy 188. *History of the South*)** — Studies in selected aspects of the economic, political, and cultural life of the region. Emphasis given to the problems of slavery and race, economic development and stagnation, the relationship of sectional politics to national politics, and the myth and reality of Southern culture and literature. Prerequisite: Hy 3.4, 3a/4a or permission. Cr 3.

**(Hy 189. *The Negro in American History*)** — The experience of black people within American society from the colonial era to the present will be treated through their interaction with the nation's social, political, cultural, and economic institutions. Major topics will include the African heritage, components of slavery, abolitionism, segregation, programs of race advancement, and the modern search for identity. Cr 3. Whitmore

**Hy 190. *Seminar in Methodology in Selected Areas of the Social Sciences*** — A one-semester course to introduce students to the library and community resources available to, and used by, social scientists. Course will emphasize student research and writing. Prerequisite: six hours of history. Cr 3. Connick

**Hy 198. *Selected Topics in History*** — An analysis in depth of a selected controversial historical problem. The topic to be studied and the method of approaching it will be chosen jointly by interested students and the staff. Prerequisite: permission. Cr 3.

**Hy 199. *Problems in Contemporary History*** — An analysis in depth of a selected controversial and contemporary historical problem. The topic to be studied and the method of approaching it will be chosen jointly by interested students and the staff. Prerequisite: permission. Cr 3.

**(Hy 240. *Recent Literature in European History*)** — A survey of the most important recent literature in the field of European history. Designed to inform the public school teacher and advanced undergraduate of the newest publications and historical controversies. Annotated bibliographies will be prepared. Emphasis on reading and discussing books and articles with applicability to secondary education programs. Prerequisite: Hy 5.6 and six hours of European history or permission. Cr 3.

**(Hy 280. *Recent Literature in United States History*)** — A survey of the most important recent literature in the field of U. S. history. Designed to inform the public school teacher and advanced undergraduate of the newest publications and historical controversies. Annotated bibliographies will be prepared. Emphasis on reading and discussing books and articles with applicability to secondary education programs. Prerequisite: Hy 3.4, 3a/4a and six hours of U. S. History or permission. Cr 3.



## PHYSICAL EDUCATION

Associate Professors Sturgeon, Sullivan (Discipline Representative); Assistant Professors Folsom, Martin, Willard; Instructors Breton, Caliendo

### Physical Education for Women (Required Program)

The required program is concerned with encouraging the pursuit of exercise as a pleasurable and healthy habit and instilling appreciation, respect, and love for participation in activity.

To fulfill the physical education requirement, students may elect two of three areas. The areas are designated as: 1) Individual and dual or team sports; 2) Dance; 3) Fitness or gymnastics. When the area requirements are satisfied the student is free to select any activity with the stipulation that it not be a repeat activity. Within each area there is a variety of different activities for which the student may register. This allows the student to choose the activities in which she has an interest and which she will enjoy.

### Physical Education for Men (Required Program)

The required physical education program for male freshmen is designed to establish habits of physical activity, to teach basic motor skills, and to provide an exposure to a variety of recreational activities that may be enjoyed in later life. The program takes into consideration the needs of each individual and allows a choice of physical activity to satisfy the needs and the capabilities of each student.

*Pe 1. Foundations of Physical Education (Men and women)* — The "know why" of exercise, along with basic physical conditioning and activity skills. Enables the student to demonstrate to himself, through participating in a battery of tests, the improved physical status he may expect from a vigorous training program. Also incorporates such related health knowledge as pertains to weight control, relaxation, body mechanics, total fitness, and the dangers of sedentary living. Two hours a week. No credit.



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*Pe 2. Physical Education Activities* (Men and women) — Basic instruction in several carry-over sports and activities. Based on the student's individual needs and interests, activities may be selected from the following: circuit training, beginning swimming, volleyball, badminton, handball, squash, bowling, golf, archery, skiing, sailing, softball and tennis. Two hours a week. No credit.

## PROFESSIONAL COURSES FOR MEN

The professional courses in physical education are designed for students who have a desire to qualify as physical educators, coach athletic teams, and direct recreational programs. Sound health, outstanding character, proficiency in motor skills, and an alert mind are requirements for admission.

All professional physical education courses offered at the Portland campus may be transferred for credit to the Orono campus and applied toward a major in physical education. The Portland campus does not offer a major in physical education at present; however, students completing the program of courses listed will be adequately prepared to enter the coaching field upon graduation.

*Pe 9m. Team Sports Skills* — To develop skills, techniques, and understandings for competency in basketball, football, and volleyball. *Cr 1.*

*Pe 10m. Sport Skills* — To develop skills, techniques, and understandings for competency in baseball, track, and tennis. *Cr 1.*

*Pe 11m. Fundamental Physical Education Skills* — To develop skills, techniques, and understandings for competency in soccer and wrestling. *Cr 1.*

*Pe 12m. Fundamental Physical Education Skills* — To develop skills, techniques, and understandings for competency in golf, archery, badminton, fencing, handball, squash, and tennis. *Cr 1.*

*Pe 13m. Physical Conditioning* — To develop skills, techniques, and understandings for competency in mass exercise, floor work, and body development. *Cr 1.*

*Pe 63m. Coaching Techniques* — Practical instruction in football and basketball for men preparing to enter the coaching profession. *Cr 2.*

*Pe 64m. Coaching Techniques* — Devoted to a study of the mechanics of running, jumping, and weight throwing, with discussions of different styles involved in track and field activities; also a study of approved methods in coaching baseball in all of its phases. *Cr 2.*

*Pe 65m. Coaching Techniques* — Practical instruction in wrestling and soccer for men preparing to enter the coaching profession. *Cr 2.*

*Pe 73. Athletic Training* — Prevention and care of injuries in athletic activities; the use of proper personal and field equipment, support methods, conditioning exercises, the medical examination, and therapeutic aids. *Cr 2.*

## PHYSICAL EDUCATION FOR WOMEN

*Pe 1W, 2W. Physical Education* — Activities are chosen from two of the following areas: 1) Team sports (basketball, field hockey, volley ball) and/or individual sports (archery, badminton, golf, skiing, tennis); 2) Fundamentals of gymnastics or fitness; 3) Dance (modern or folk). Two hours a week. No credit.

\*Additional courses in the Physical Education professional program will be offered periodically.

## POLITICAL SCIENCE

Associate Professor Pease (Leave of Absence); Assistant Professors Fisher, Hinman, (Leave of Absence), Peirce (Discipline Representative), Roberts; Instructor Maney

Courses in political science provide students with a knowledge of the theory, function, and problems of government and politics at local, state, and national levels. Students may compete for a Congressional Internship Program in Washington, D.C., and a State Government Internship for Maine. Students should consult with their advisers for further information concerning these programs. The political science discipline, in cooperation with the Continuing Education Division, is developing a program leading to the master's degree in public administration.

Students majoring in political science must complete a minimum of 36 hours in the discipline, including:

- a) Pol 1/2 Introduction to Government
- b) Pol 183/184 Constitutional Law *or*  
Pol 189, 190 Political and Social Thought
- c) Pol 197 Scope of Political Science (senior year)

Note: Pol 21.22, Current World Problems, may not be counted towards major requirements.

In addition, political science majors must complete 18 hours in related areas, choosing one of the following options:

- a) General: any three of the following full-year courses:  
Ay 1/2, Ec 1/2, Hy 3.4, Hy 5.6, Pl 1.2, Sy 3/4.
- b) Specific: 18 hours, including a six-hour foundation course in one of the following fields:  
Economics, history, psychology, or sociology and anthropology.

#### Course Offerings in Political Science:

**Pol 1/2. Introduction to Government** — An introduction to the discipline of political science, with emphasis on U.S. government and politics. Political systems, cultures, and ideologies. Political institutions, processes, and problems in the U.S. *Cr* 3. Fisher, Maney

**Pol 3. State Government** — State constitutions, structure and functions of state government. Relations with federal, state, and local governments. Prerequisite: sophomore standing. *Cr* 3. Pease

**Pol 21.22. Current World Problems** — Contemporary domestic and international affairs, with special emphasis on events in the Communist world and the underdeveloped areas. *Cr* 2. Roberts

**Pol 133. The American City** — The process of government in urban America including concepts of local self-government, forms and procedures in urban governing, and developments in intergovernmental relations and metropolitan areas. Prerequisite: Pol 1/2. *Cr* 3. Fisher

**Pol 135. Democratic Governments of Europe** — An introduction to the parliamentary system, through a study of the governmental operations and politics of Britain, France, and the Federal Republic of Germany. Other topics covered: the Common Market and prospects for European integration; relationship of democratic Europe with Communist Europe. *Cr* 3. Roberts

**Pol 136. The Soviet Union** — An introduction to the USSR. Russian and Soviet political history; Marxism-Leninism; the party and state structures; the socialist economy; impact of the regime on the individual Soviet citizen; cultural life. *Cr* 3. Roberts



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**Pol 139. Soviet Foreign Policy** — A survey of Soviet foreign policy as a continuation of Tsarist policies; as a world movement; the Comintern and the Popular Front. Impact of World War II: the emergence of the USSR as a superpower. Post-Stalin modifications. Case studies in contemporary foreign problems, including relations within the Communist world. **Cr 3.** **Roberts**

**Pol 151. Public Administration** — The dynamics of government administration including administrative principles. Decision-making; communication; leadership; organizational models; and technical, political, and personal factors of administration. Prerequisite: Pol 1/2. **Cr 3.** **Pease**

**Pol 156. Political Parties** — Development and present organization and operation of the American party system. Nature and function of major and minor parties, sectionalism, nominating systems, presidential and congressional elections, the electorate, finance, interest groups. Prerequisite: Pol 1/2. **Cr 3.** **Maney**

**Pol 157. The President and Congress** — A detailed analysis of the executive and the legislature, their processes, roles, behavior, and leaders; contemporary legislative-executive relationship. **Cr 3.** **Staff**

**Pol 173/174. International Relations** — First semester: the nation-state system, techniques of states in expanding their influence, and restraints imposed on their freedom of action. Second semester: a comparative analysis of the actions of major governments of the world through the study of the implementation of policy in specific areas. **Cr 3.** **Peirce**

**Pol 183/184. American Constitutional Law** — The development and interpretation of the American Constitution through Supreme Court decisions. First semester: the nature of the federal judicial process, interstate commerce, taxation, war powers, federal-state relations. Second semester: the Supreme Court and civil rights. Prerequisite: Pol 1/2 or permission. **Cr 3.**

**Pol 187. International Law** — 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. Alternate years beginning 1970-71. **Cr 3.** **Peirce**

**Pol 188. International Organization** — An analysis of the approaches to the problems of peace, economic and social justice at the international level. Emphasis on the United Nations system and its specialized agencies. Spring semesters alternate years beginning 1970-71. **Cr 3.** **Peirce**

**Pol 189/190. Political and Social Thought** — A survey of political theories from ancient Greece to recent times. The basic approach is historical, and seeks to relate theories of politics to the environments in which they developed. Prerequisite: junior or senior standing. **Cr 3.** **Fisher**

**Pol 193. Special Topics in Political Science** — A concentrated program of readings on a particular subject of the student's selection. The readings will be chosen with the advice and under the direction of a faculty member. Admission by permission of the political science faculty. **Cr 3.**

**Pol 197. Scope of Political Science** — The scope and nature of the study of politics: power and society; basic descriptive political theory and the role of political institutions. Prerequisite: Pol 1/2. Open to senior political science majors or with permission. **Cr 3.** **Fisher**

**Sem 5. The Supreme Court and Public Education** — Contemporary educational topics such as integration, religion in the schools, federal aid to education, student unrest, student and teacher rights as seen through court decisions and other readings. **Cr 3.**



## SOCIOLOGY AND SOCIAL WELFARE

Professor Romanyshyn; Associate Professors Giguere, Monsen (Discipline Representative), Steinman; Assistant Professor Anspach; Instructors Fullam, Grossinger

The world, unlike University disciplines, is not neatly divided into discrete categories. The sociology program informs itself from this idea. The discipline conceptualizes the world of men as a totality of interdependent elements dynamically operating. Contemporary social problems will be examined in this light.

These problems, despite their complexity, will be viewed as explicable and capable of resolution when they are approached from a creatively imaginative sociological perspective. Wars, revolutions, and assassinations do not "just happen"; one can analyze social events and detect connected causative threads. The student of sociology, no matter what his career objective, will be encouraged to thrust himself into the apparent chaos of the social flux and attempt to find these "threads." Hopefully, he will, in the process, become a truly educated man capable of functioning on a high level within the apparent ambiguities of society.

There is a major program here in sociology and students majoring in it who intend a career in this field will be given ample exposure to the "tools of the trade" which will prepare them for graduate school. The sociology major is required to take Ay 1/2, Introduction to Anthropology; Sy 119, Statistical Methods for Sociological Research; Sy 120, Methods of Social Research; and Sy 160, Sociological Theory; as well as Sy 3/4, Introduction to Sociology. The latter course is a prerequisite for all upper division courses.

Students completing a major in sociology will have many interesting occupational choices open to them after graduate school. Graduate work will be necessary, of course, to obtain the more attractive jobs available to sociology majors. College teaching and social research jobs in industry and government abound for those who go on to complete the Ph.D. in sociology; however, the achievement of a master's degree can qualify the student for many interesting, socially useful, and financially rewarding jobs.

Students have the option of concentrating in a social welfare sequence within the sociology major. Social welfare is an interdisciplinary area of study. Although it draws heavily from sociology, it derives its knowledge also from history, economics, political science, psychology, and philosophy. The goal is to enable students to understand and critically evaluate the efforts of society to deal with its social problems and to improve the quality of life. Socially recognized needs, formal organizations (social agencies), human service professions, and the development of social policy within the context of democratic values and changing social order represent key concepts. Study of social welfare is both liberal and pre-professional education. Courses are intended for the general student and for those who wish to prepare for a career in one of the human sciences.

Also within the discipline is anthropology. The current offering in Ay 1/2, Introductory Anthropology, explores some of the major areas and theories in this field. Although similar to sociology in the common concern with culture, one chief difference is in the attention paid to those biological features which enable man to create a distinctively human world. In addition to such ethnographical matters as custom and social organization, consideration is given to human paleontology and racial formations. Consequently, students specializing in related areas of social sciences will find this study quite valuable. It is expected that in the near future more courses in anthropology will be offered.



### Anthropology

**Sy 1/2. Introduction to Anthropology** — The development of man as a biocultural phenomenon. Special emphasis on human paleontology and race formation as well as on the nature of culture and such human institutions as social organization, marriage, religion, economics, etc., among primitive people, with some application of derived principles to Western civilization. Cr 3.

### Sociology

**Sy 3/4. Introduction to Sociology** — The fundamental concepts, principles, and methods of sociology; analyzes the influence of social and cultural factors upon human behavior; evaluates effect of group processes, social classes, stratification, and basic institutions on contemporary society. The first semester (Sy 3) concentrates on concepts and principles; the second semester (Sy 4) on application of these to various social problem areas. Cr 3.

**Sy 110. Social Organization** — An examination of selected institutions in modern society, analysis of social roles, processes and structures within typical organized groups, such as industrial, military, religious, and fraternal organizations; discussion of bureaucracy, decision making, social conflict; the implication of cultural and technological change. Prerequisite: Sy 3 or permission of instructor. Cr 3.

**Sy 113. Social Disorganization** — The origins 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: Sy 3 or permission of the instructor. Cr 3.

**Sy 114. Social Change** — Analysis of sociocultural factors related to social change and the dynamics of the change process. Prerequisite: Sy 3 or permission of the instructor. Cr 3.

**Sy 118. Sociology of the Family** — A sociological approach to the study of the family, including the structure of social relationships, the modern American family as a social institution, the cultural background of the family, and the impact of social change. Prerequisite: Sy 3 or permission of the instructor. Cr 3. **Giguere**

**Sy 119. 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.

**Sy 120. Methods of Social Research** — Conceptualization and research design; data collection and data analysis; logic of inquiry and research techniques.

**Sy 122. Criminology: The Adult Offender** — 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: Sy 3 or permission of instructor. Cr 3.

**Sy 123. Social Stratification** — Systematic analysis of social differentiation and evaluation. Theories of, and research in, the structure and function of class, caste, and ethnic stratification. Prerequisite: Sy 3 or permission of instructor. Cr 3. **Giguere**

**Sy 125. Industrial Sociology** — Social factors involved in the development of industries, social consequences of technological change; social organization within industry; problems encountered within the social structure(s) of industry. Prerequisite: Sy 3 or permission of instructor. Cr 3.

**Sy 126. Sociology of Urban Life** — A descriptive and analytical approach to the study of city life. Emphasis is placed on environment, social organization, the ecological processes, population, areas, housing, and maladjustments. No freshmen. Prerequisite: Sy 3 or permission of the instructor. Cr 3. **Giguere**

**Sy 134. Population** — Theories of population. Demography; analysis of birth, death, and migration trends. Problems and policies. Prerequisite: Sy 3/4 or permission of instructor. Cr 3. **Giguere**

**Sy 140. Social Control** — Examination and comparison of major societal control mechanisms. Emphasis on various institutions of social control and their role in establishing and maintaining social order. Prerequisite: Sy 3 or permission of instructor. Cr 3.

**Sy 160. Sociological Theory** — A critical examination of the sociological theories of Marx, Max Weber, Durkheim, and contemporary theorists such as Parsons and Robert Merton. Study of developments in sociological theory as related to methodology, social issues, and current trends in contemporary sociology. Prerequisite: Sy 3 and two other courses in sociology, or permission of the instructor. Cr 3.

**Sy 161. History of Sociology** — Trends and leading figures in the history of sociology. Survey of current approaches and established principles in the field. Prerequisite: Sy 3 and two other courses in sociology, or permission. Seniors only. Cr 3.

**Sy 169. Collective Behavior and Social Movements** — Behavior of groupings such as mobs, crowds, and riots. Relatively unstructured mass behavior and broad society-wide movements are analyzed. Prerequisite: Sy 3 or permission of the instructor. Cr 2.

**Sy 171. Sociology of Medicine** — Attention is given to the relationship between socio-cultural factors and the occurrence of disease and the social systems which are developed in the treatment and prevention thereof. Prerequisite: Sy 3/4 or permission of the instructor. Cr 3.

**Sy 197/198. Department Projects** — For the advanced student. Minimum of 15 hours of department courses as a prerequisite: Apply directly to discipline representative. Cr 2 or 3.

## SOCIAL WELFARE

**Sw 150. Social Problems and Social Welfare Policy** — A critical examination of how society defines its social problems and develops strategies for dealing with them. Social welfare policy and programs are studied within a social and cultural context. Prerequisite: Ay 1/2 or Sy 3. Cr 3.

**Sw 152/153. Human Service Organizations and Professions** — Guides the student toward developing a rational perspective on those occupations in service to man, and the bureaucracies which deliver their services. Consideration is given to the interaction between professionals and their clients, as well as to the new emphasis upon the assumption of policy-making roles by clients. Prerequisites: Sy 3 and Sw 150, or permission of the instructor. Cr 3.

**Sw 154/155. Field Experience in Social Welfare** — Conceiving of the community as a laboratory, students engage in field experience to apply knowledge from the social and behavioral sciences in order to deepen their understanding of concepts and test their motivation and capacity for human service. Prerequisites: Sw 150, Sw 152, or permission of the instructor. Cr 3.

**Sw 154a. Field Experience: Human Service Professions** — A field experience course designed to provide the teacher candidate with experiences which will increase his awareness and understanding of the roles of other human service professionals in community dynamics; an opportunity to use the community as an extended university laboratory for testing application of theoretical formulations drawn from specific social and behavioral studies — especially those relevant to urban or disadvantaged school children. This course requires two full days, or the equivalent, each week for eight weeks. In most cases, class seminars, class meetings in the community, and individual agency internships will be held on Mondays and Wednesdays.



# The Honors Program

H. DRAPER HUNT, Secretary

Normally, an incoming freshman will be invited to join the Honors Program on the basis of his intellectual curiosity and initiative as displayed in his high school work, as well as on the basis of his C.E.E.B. test scores. Already enrolled students who have demonstrated intellectual curiosity and ability and have maintained a point average of 3.0 or better will be invited to join the program as second-semester freshmen or sophomores. Some few exceptionally qualified juniors may be admitted to the program.

To graduate with honors, a student must successfully complete (with a grade of B or higher) a minimum of four semesters of Honors work, including both semesters of the senior year (Hr 53 and 54) and at least one semester of sophomore group tutorials (Hr 47 or 48). A student who has successfully completed the Honors Program will be awarded his degree with honors, in one of three categories: Honors, High Honors, Highest Honors, depending upon three factors: the quality of the student's senior thesis or research project; his performance on the comprehensive oral examination; and his accumulative average over seven semesters.

The promising student will find in the special independent study program, as well, flexibility and encouragement for his intellectual curiosity.

Early independent study allows a qualified freshman or sophomore to substitute projects carried out under the guidance of professors in appropriate disciplines, in the place of some general, normally required courses.

*Freshman Year: Hr 41 — Distinguished Freshman Seminar.* Discussions and demonstrations displaying the range and nature of liberal arts and sciences. Offered in the fall semester. Limited to selected freshmen, three credits. *Hr 45 — Honors Colloquium.* Readings and discussion on the basic concepts of Western civilization. Offered in the spring semester. Limited to selected freshmen. Three credits.

*Sophomore Year: Hr 47 and 48 — Honors Group Tutorial.* Oral and written reports under tutorial direction. The student is expected to read widely in areas outside his normal course program and particular field of interest. The books are selected from an honors reading list, and each group tutorial does substantial reading in three or four areas of thought each semester. Open to sophomores and those students admitted to the Honors Program at the beginning of the junior year. Three credits each semester.

*Hr 50 — Honors Seminar.* Discussion groups in such fields as the arts, philosophy and history of science, and the study of society. Content varies from year to year. Normally taken in the Junior year. Three credits.

*Junior Year: Hr 51 and 52 — Honors: Specialized Studies.* Individual tutorial work in the student's major field. The student will read both in depth and breadth in his chosen area of concentration under faculty guidance, and will select an approved thesis topic by the end of the course. Open to juniors. Three credits each semester.

*Senior Year: Hr 53 and 54 — Honors Thesis.* The planning and completion of an honors thesis or research topic. The student will work closely with his faculty tutor and should expect to submit his thesis by May 1. This will be followed by a comprehensive oral examination before a faculty board, in which a student demonstrates both breadth of knowledge and depth of specialization within his major field. Open to seniors. Three credits each semester.

# General Education Requirements at the Portland Campus

The following general education requirements apply to all students who enroll for the first time in four-year degree programs with classes starting on or after September 14, 1970, at the Portland Campus.

Students at the Portland Campus may enroll in a variety of four-year degree programs in business, nursing, teaching, or liberal arts and science. Although the special needs of these degrees must be met, students in these programs must also fulfill a general education requirement which exposes each student to a range of ideas and facts that will give him some general knowledge of himself, his world, and his culture. The general education requirements also assure that those verbal skills necessary for the discourse of a college-educated person will be acquired.

Candidates for the degree of Bachelor of Arts must complete all the general education requirements listed below. Candidates for the degree of Bachelor of Science are not required to meet the Intermediate Level Foreign Language requirements (Group II), but they must meet all other general education requirements.

## General Education Requirements

- |  |                            |
|--|----------------------------|
| Group I: Written and Oral Communication .....  | Three one-semester courses |
| One semester of Speech ( <i>Sh 1, described on page 154</i> ) and two semesters of English Composition and Literature. ( <i>Eh 1 and Eh 9, described on page 145, will normally be completed, but substitute courses may be selected with permission of the English Discipline Representative.</i> )   |                            |
| Group II: Intermediate Level Foreign Language ..   | One two-semester course    |
| This requirement is applicable only to students seeking a Bachelor of Arts degree, and it may be waived upon successful completion of a qualifying examination. ( <i>For course descriptions, see Lt 3/4 and Fr 3/4 on page 149, Gm 3/4 on page 150, and Sp 3/4 on page 151.</i> )   |                            |
| Group III: Mathematics, Logic, or Linguistics .....  | One one-semester course    |
| The student may select any mathematics or logic course for which he can qualify, or he may select one of the following linguistics courses: Eh 141, Eh 142, Eh 149 ( <i>described on page 146</i> ).   |                            |
| Group IV: Fine Arts .....  | One one-semester course    |
| The student may select one of the following art courses: At 1, At 3, At 4, At 5, At 6, At 7, At 8 ( <i>described on pages 143-144</i> ); or one of the following music courses: Mc H 1, Mc H 2, Mc L 1 ( <i>described on page 152</i> ); or one of the following speech courses concerned with the theatre: Sh 11, Sh 16, Sh 17, Sh 41 ( <i>described on page 154</i> ), or Sh 162 (Theatre History) if offered. |                            |



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- Group V: Literature and Philosophy ..... Two one-semester courses  
 The student may select two of the following: Eh 3, Eh 4, Eh 15, Eh 16, Eh 43, Eh 55 (*described on pages 145-146*); Cl 1, Cl 2 (*page 148*); Cp 191, Cp 192 (*page 148*); Pl 1a, Pl 1b, Pl 1c, Pl 1d, Pl 111 (*page 153*).
- Group VI: Social Science ..... Choice of two one-semester courses or one two-semester course  
 The student may make this selection from: Ay 1/2, Sy 3/4 (*page 180*); Py 1/2 (*page 165*); Ec 1, Ec 2 (*page 141*); Hy 3, Hy 4, Hy 3a, Hy 4a, Hy 5, Hy 6 (*page 170*); Hy 7, Hy 8 (*if offered*); Pol 1, Pol 2, Pol 21, Pol 22 (*page 177*).
- Group VII: Natural Science ..... Two semesters, including at least one semester of a laboratory science course  
*Laboratory Science Courses:* Bt 1 (*page 158*); Ch 11/12, Ch 13/14 (*pages 160-161*); Gy 1, Gy 2 (*if offered*); Ps 1/2, Ps 1a/2a (*page 164*), Zo 3, Zo 8 (*page 159*).  
*Non-Laboratory Science Courses:* As 9 (*Offered by the Continuing Education Division*); Gy 1a, Gy 2a (*page 162*); Ps 3 (*page 164; not offered in 1970-71*).
- Group VIII: Physical Education ..... Two semesters required  
 (See *pages 175-176*.)

## Explanation of the Semester System

A college year is divided into two semesters at most universities. The first semester usually starts in September and ends in January. The second semester usually starts in February and ends at about the beginning of June. Each semester is a separate unit. Students register one semester at a time, make satisfactory financial arrangements one semester at a time, and make out course schedule cards which must be approved by their faculty adviser one semester at a time. Such matters must be completed a stated period before the beginning of each semester, or else a late-registration fee will be charged.

A few of the courses listed under the General Education Requirements contain two code numbers separated with a slanting line, as in the case of the Group II courses (Lt 3/4 and the like). The slant means that a student will receive credit for one semester if he completes Lt 3 with a passing grade, but that he cannot skip Lt 3 and enter directly into the second semester Lt 4 course. A few courses in Groups VI and VII carry coding of this sort.

Most of the courses listed under the General Education Requirements, however, may be considered as individual units. For instance, a student may enroll in Eh 4 in the spring semester even though he has never taken Eh 3. If a further explanation is needed, see page 127.

# School of Law

EDWARD S. GODFREY, DEAN





## School of Law

Dean Edward S. Godfrey; *Resident Faculty* — Professors Harry P. Glassman, L. Kinvin Wroth, John Andrew Spanogle, Donald L. Carbrecht (Librarian), David J. Halperin, Pierce B. Hasler, Orlando E. Delogu; Associate Professors Gerald F. Petrucci, Jr., Edwin A. Heisler; Lecturers Leonard M. Nelson, Richard E. Poulos, Cushman D. Anthony (Director of Clinical Practice Program); William F. Julavits (Assistant Dean)

The School of Law is located in Portland, Maine, at 68 High Street, about one mile from the Portland campus of the University of Maine at Portland-Gorham. It is a full-time day school, offering a three-year program leading to the degree of *juris doctor*. With its rapidly growing library, containing over 89,000 volumes, the school serves as the chief center of teaching and research in law in northern New England. It is fully approved by the American Bar Association and is a member of the Association of American Law Schools.

The School of Law provides sound preparation for entry into the legal profession. The instruction familiarizes the student with basic principles of law, their purposes and social origins, and the processes by which legal institutions grow. Programs of legal writing, drafting, and advocacy develop professional skills. A clinical program is open to seniors.

A law student's work consists primarily of independent study of assigned materials as ground work for critical discussion under guidance of the professor. The classroom experience requires the student to apply, compare, and test legal ideas in varying fact situations. Precedents and authorities of many jurisdictions, as well as relevant materials drawn from other disciplines, are used as the basis for study. Although statutes and rules peculiar to Maine are noted, the course of study consists primarily of an investigation and analysis of legal processes and institutions.

A candidate for the law degree at the University of Maine must, by the time he begins his law study, hold a bachelor's degree from a college or university accredited by the appropriate regional association of colleges and secondary schools. Each applicant for admission is required to take the Law School Admission Test administered by the Educational Testing Service, Princeton, New Jersey. Information concerning admission requirements and other matters may be obtained from the Office of the Dean of the Law School, 68 High Street, Portland, Maine.

# The University of Maine at Portland-Gorham

## Administration

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### Administrative Staff of the Acting Dean of Academic Affairs

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### Administrative Staff of the Acting Director of Finance and Administration

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ACTING BOOK STORE MANAGER, GORHAM .....	Pearlice Hoyt

### Administrative Staff of the Acting Dean of Student Affairs

ASSOCIATE DEAN OF STUDENTS FOR HOUSING, GORHAM .....	Koharig S. Kimmel
DIRECTOR OF STUDENT AID AND ASSOCIATE DEAN OF STUDENTS ..	Jerome S. Sullivan
ASSOCIATE DIRECTOR OF STUDENT AFFAIRS, PORTLAND .....	Dorothy D. Moore
ASSISTANT DEAN OF STUDENT AFFAIRS .....	Harold P. Menninger
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DIRECTOR OF PLACEMENT .....	Frederick E. Freise
ASSISTANT DIRECTOR OF PLACEMENT, GORHAM .....	Kenneth W. Lane
DIRECTOR OF TESTING AND COUNSELING, PORTLAND .....	Jane O. Sanborn
DIRECTOR OF STUDENT UNION, PORTLAND .....	George E. Van Amburg

**Administrative Staff of the Director of Public Information and Development**

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**Divisional Chairmen at the Portland Campus**

BUSINESS AND ECONOMICS .....	John W. Bay
HUMANITIES (ACTING CHAIRMAN) .....	Richard N. Coffin
SCHOOL OF NURSING (DIRECTOR) .....	Mary Ann Eells
SCIENCE AND MATHEMATICS .....	Haig H. Najarian
SOCIAL SCIENCES .....	Phillip A. Cole

**Other Administrative Officers with Offices at the Portland Campus**

DIRECTOR OF THE CONTINUING EDUCATION DIVISION .....	Walter P. Fridinger
DIRECTOR, BUREAU OF LABOR EDUCATION .....	Roger V. Snow, Jr.
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CHAIRMAN OF THE COOPERATIVE EXTENSION SERVICE (CUMBERLAND COUNTY) .....	Burleigh P. Loveitt

**Department Chairmen at the Gorham Campus**

ART .....	Gwen D. Sawtelle
EDUCATION .....	Melissa H. Costello
ENGLISH .....	John G. Hanna
HEALTH AND PHYSICAL EDUCATION .....	Richard A. Costello
INDUSTRIAL ARTS .....	John Mitchell
MATHEMATICS .....	Lincoln T. Fish, Jr.
MUSIC .....	Gerard G. Chamberland
SCIENCES .....	Harold T. Neuberger
SOCIAL SCIENCES .....	Angelo A. Lacognata
SPEECH .....	Minor R. Rootes



# Personnel of The Gorham Campus

## 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

## PERSONNEL

*(The following listing includes both teaching faculty and also those members of the UMPG administrative personnel with principal offices at Gorham. Dates in parentheses indicate year of initial appointment.)*

- ALLEN, BRUCE A. (1970) Instructor of Mathematics Education; Gorham State College, B.S., 1960, M.S. in Ed., 1967  
AYERS, GEORGE H. (1959) Assistant Professor of Science; University of Maine, B.A., 1951; Ohio State University, M.A., 1959  
BARKER, GEORGE J. (1955) Associate Professor of Biological Science; Gorham State College, B.S., 1951; Boston University, Ed.M., 1958  
BEMIS, A. NYE (1970) Director of Upward Bound, Instructor of Education; Gorham State College, B.S., 1964; M.S., 1969  
BERGESON, PHILIP H. (1970) Assistant Professor of Education; Utah State University, B.S., 1963; Indiana University, M.S. in Ed., 1969  
BERRY, ARTHUR O. (1955) Professor of Industrial Arts; Gorham State College, B.S., 1950; Pennsylvania State University, Ed.M., 1954; University of Connecticut, Ph.D., 1967  
BIBBER, JOYCE K. (1967) Associate Professor of History; Westbrook Junior College, A.A., 1956; Barnard College, B.A., 1958; Stanford University, M.A., 1962, Ph.D., 1969  
BOUCHARD, JOEY A. (1968) Assistant Professor of Physical Education; Springfield College, B.S., 1960, M.Ed., 1961; Boston University, C.A.S., 1968  
BOWDEN, REGINALD B. (1965) Director of Public Information and Development, UMPG; University of Maine, B.A., 1955  
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 Psychology; Gorham State College, B.S., 1947; Boston University, Ed.M., 1951  
BRADBARD, DAVID A. (1969) Instructor of Mathematics; University of New Hampshire, B.S., 1964, M.S., 1969  
BRADY, JAMES B. (1969) Technical Services Librarian; State University of New York at Albany, B.A., 1967, M.L.S., 1969  
BRIGGS, WAYNE F. (1965) Business Manager, UMPG, Gorham  
BROOKS, KENNETH T. H. (1959) University Professor of Education, President of Gorham State College (1960-70); University of New Hampshire, A.B., 1947; Boston University, Ed.M., 1948, Ed.D., 1955  
CAMPBELL, KENT (1970) Associate Professor of Music; University of Kentucky, B.M., 1952; University of Illinois, M.S., 1953; Ed.D., 1968

- CARNER, FRANK K. (1970) Assistant Professor of English; Temple University, B.S. in Ed., 1964, M.A. 1967
- CARTER, RICHARD H. (1964) Assistant Professor of Industrial Arts; Gorham State College, B.S., 1954; University of Maine, Ed.M., 1964
- CHAMBERLAND, GERARD G. (1957) Associate Professor of Music; Chairman, Department of Music; Boston University, B. of Mus., 1950, M.M., 1956
- COBB, MERRILL E. (1966) Associate Dean, UMPG, Gorham; Professor of Education; University of Maine, B.S., 1949, Ed.M., 1953; University of Massachusetts, Ed.D., 1968
- COLE, RONALD F. (1963) Assistant Professor of Music; Bowdoin College, B.A., 1961; Eastman School of Music, M.A., 1963
- COSTELLO, MELISSA H. (1953) Associate Professor of Education; Chairman, Department of Education; Gorham State College, B.S., 1952; University of Maine, Ed.M., 1957, C.A.S., 1960
- COSTELLO, RICHARD A. (1953) Director of Athletics, UMPG; Professor of Health and Physical Education; Chairman, Department of Health and Physical Education; University of Alabama, B.S., 1952; University of Illinois, M.S., 1953; Springfield College, D.P.E., 1965
- CROCHET, MONIQUE Y. (1970) Assistant Professor of French; University of Paris, Sorbonne, B.A., 1959, M.A., 1960, M.A.T., 1960, Ph.D., 1969
- DAVIS, EVERETT A. (1966) Instructor of Education; Gorham State College, B.S., 1961; Indiana University, M. S. Ed., 1966
- DICKEY, EDNA F. (1946) Associate Professor of History; University of New Hampshire, B.A., 1933, M.A., 1936
- DORSEY, F. DONALD, JR. (1967) Assistant Professor of Biology; Bowdoin College, A.B., 1950; Syracuse University, M.S., 1960; Simmons College, M.S., 1964
- DUSO, RALPH E. (1948) Director of Purchasing, UMPG; Keene Teachers College, B.Ed., 1935; New York University, M.A., 1944
- EMERSON, HORTON W., JR., (1962) Professor of History; Colby College, A.B., 1949; Yale University, Ph.D., 1957
- ESTES, ROBERT A. (1966) Associate Professor of Mathematics; Bowdoin College, A.B., 1958; University of Kansas, M.A., 1961; University of Michigan, Ph.D., 1970
- EVES, HOWARD W. (1969) Visiting Professor of Mathematics; University of Virginia, B.S., 1934; Harvard University, M.S., 1936; Oregon State University, Ph.D., 1948
- FAULKNER, HOWARD M. (1970) Associate Professor of Graphics; Massachusetts State College at Fitchburg, B.S. in Ed., 1957; Northeastern University, M.Ed., 1960
- FICKETT, REGINALD N. (1964) Assistant Professor of Education; Gorham State College, B.S., 1958; University of Maine, Ed.M., 1960, C.A.S., 1968
- FISH, LINCOLN T., JR. (1959) Professor of Mathematics; Chairman, Department of Mathematics; University of Maine, B.S., 1948, M.A., 1949; Boston University, Ed.D., 1951
- FRANKLIN, PATRICIA R. (1970) Instructor of Art; Pratt Institute, B.F.A., 1962; The Tulane University of Louisiana, M.F.A., 1970



# GORHAM

- FRENCH, ROBERT J. (1969) Assistant Professor of Geography; Dartmouth College, A.B., 1957; Northeastern University, M.Ed., 1967
- GILES, CLIFTON F., JR. (1969) Head Librarian; University of Massachusetts, B.A., 1960; University of Illinois, M.L.S., 1963
- GOODWIN, JEANETTE L. (1955) Associate Professor of Physical Education; Sargent College, B.S., 1944; Springfield College, Ed.M., 1955
- GRASS, CALVIN F. (1966) Associate Professor of Physics; Boston University, A.B., 1949; University of Maine, Ed.M., 1954
- GUTZMER, WILLARD E. (1969) Associate Professor of Education; Olivet College, B.A., 1947; University of Utah, M.S., 1953, Ph.D., 1969
- HACKETT, GEORGE F. (1968) Associate Professor of Education; Central Michigan University, B.A., 1952; University of Michigan, M.A., 1957
- HANNA, JOHN G. (1963) Professor of English; Chairman, Department of English; Trinity College, B.S., 1936; Harvard University, M.A., 1946; Boston University, Ph.D., 1958
- HARE, PARNELL S. (1963) Associate Professor of Science; University of Maine, B.S., 1956; University of New Hampshire, M.S., 1960
- HEEL, HELEN E. (1953) Assistant Professor of Music; Gorham State College, B.S., 1942; University of Michigan, M.M., 1948
- HEMPEL, CARL H. (1967) Director of Student Teaching, Professor of Education; Hyannis State Teachers College, B.S. in Ed., 1941; University of Connecticut, M.S. in Ed., 1950; Ph.D., 1960
- HODGDON, PAULA D. (1967) Associate Professor of Physical Education; Lasell Junior College, A.A., 1948; Beaver College, B.A., 1950; Teachers College, Columbia University, M.A., 1952
- HODGES, FRANKLIN D. (1966) Assistant Professor of Geography; Farmington State College, B.S., 1961; Clark University, M.A., 1966
- HOJNACKI, KATHLEEN M. (1969) Assistant Dean of Students; Western Michigan University, B.A., 1966; Indiana University, M.S., 1969
- HOYT, PEARLICE (1960) Acting Book Store Manager, UMPG, Gorham
- JONES, BRYANT P. (1966) Assistant Director for News Services, UMPG; University of Maine, B.A., 1964
- KERR, ELIZABETH F. (1957) Professor of Science; Marygrove College, B.S., 1939; Columbia University, A.M., 1946, Ed.D., 1956
- KIMMEL, KOHARIG S. (1968) Associate Dean of Students for Housing, UMPG, Gorham; University of Maine, B.A., 1965; Ohio University, M.A., 1967
- LACOGNATA, ANGELO A. (1965) Professor of Sociology; Chairman, Department of Social Sciences; University of Buffalo, B.A., 1957; University of Rochester, M.A., 1959; Michigan State University, Ph.D., 1962
- LANE, KENNETH W. (1969) Assistant Director of Placement, UMPG, Gorham; University of Maine, B.S., 1964
- LA POINTE, NORMAN J. (1967-69; 1970) Project Director, Head Start Supplementary Training Program, Assistant Professor of Education; University of Maine, B.S., 1956; University of Massachusetts, M.A., 1960

- LITTLEFIELD, MAURICE E. (1965-68, 1970) Assistant Professor of Education; Development Officer, UMPG (Office at Portland); University of Maine, B.S., 1960; University of Virginia, Ed.M., 1964
- MacDONALD, STEPHEN A. (1970) Assistant Professor of Mathematics; Gorham State College, B.S., 1960; University of Maine, M.A., 1964
- MacDOUGALL, RONALD J. (1962) Assistant Librarian; Plymouth State College, B.Ed., 1953; Rutgers University, M.L.S., 1962
- MERTENS, ROBERT P. (1967) Associate Professor of Industrial Arts; State University College of New York at Buffalo, B.S., 1958, M.S., 1963
- MILBURY, ALLEN W. (1963) Associate Professor of Education; Director of Educational Media, UMPG; University of New Hampshire, B.A., 1960; Indiana University, M.S., 1963, Ed.D., 1969
- MILLER, ROBERT N. (1946) Associate Professor of Science; Colby College, A.B., 1936
- MINER, GALE P. (1960) Assistant Professor of Art; Columbia University, B.S., 1947; Teachers College Columbia, M.A., 1951; Columbia University, M.F.A., 1958
- MITCHELL, JOHN (1947) Professor of Industrial Arts; Chairman, Department of Industrial Arts; Fitchburg State College, B.S., 1939; University of Minnesota, M.A., 1947; Pennsylvania State University, Ed.D., 1954
- MOBERG, WENSEL W. (1954) Administrative Aide; Clark University, A.B., 1939, M.A., 1942
- MOORE, MICHAEL G. (1967) Assistant Professor of Art; Syracuse University, B.F.A., 1963; University of Washington, M.F.A., 1967
- MORRILL, DAVID (1970) Assistant Professor of Graphic Arts; Moorhead State College, B.S., 1967; Texas A & M University, M.Ed., 1968
- MOULTON, JOHN K. (1968) Assistant Professor of Mathematics; Harvard University, A.B., 1936, Ed.M., 1940; Bowdoin College, M.A., 1962
- NEUBERGER, HAROLD T. (1957) Professor of Science; Chairman, Department of Sciences; Iowa-Wesleyan College, B.S., 1952; University of New Mexico, M.S., 1953; Boston University, Ed.D., 1964
- O'DONNELL, C. MICHAEL P. (1970) Associate Professor of Early Childhood Education; University of Maine, B.S. in Ed., 1958, M.S., 1961; Syracuse University, Ed.D., 1968
- O'REILLY, CHARLES A. (1966) Assistant Professor of English; Colby College, B.A., 1949; Antioch-Putney Graduate School of Teacher Education, M.A., 1952
- PARADISE, NOEL E. (1967) Professor of Psychology; University of Maryland, A.B., 1948; University of Michigan, Ph. D., 1960
- PEABODY, MARY (1935) Assistant Professor of Mathematics; Boston University, B.S., 1933, M.S., 1947
- PEABODY, MILDRED (1952) Associate Professor of Education; Gorham State College, B.S., 1939; Boston University, Ed.M., 1952
- PENDLETON, JAMES W. (1967) Assistant Professor of Science; Keene State College, B. of Ed., 1959; Oregon State University, M.S., 1963
- PIC'L, MELVIN E. (1969) Assistant Professor of Speech; Pepperdine College, B.A., 1958, M.A., 1962



GORHAM

- RAYBOULD, PATRICIA D. (1970) Instructor of Physical Education; University of Oregon, B.S., 1963; Boston University, M.S., 1964
- REUTER, JOHN E. (1969) Associate Professor of English; University of New Hampshire, A.B., 1958; University of Rochester, M.A., 1963, Ph.D., 1968
- RICIPUTI, REMO H. (1965) Associate Professor of Biology; University of New Hampshire, B. A., 1954, M.S., 1958
- ROBERGE, ALBERT J. (1970) Associate Registrar, UMPG, Gorham; Western New England College, B.B.A., 1965
- ROLFE, FREDERICK B. (1966) Assistant Professor of French; Bowdoin College, A.B., 1946; Middlebury College, A.M., 1948
- ROOTES, MINOR R. (1966) Associate Professor of Speech and Theatre; Chairman, Department of Speech; University of California at Santa Barbara, A.B., 1954; San Francisco State College, M.A., 1961
- ROSEN, KENNETH F. (1965) Assistant Professor of English; Pennsylvania State University, B.A., 1962; University of Iowa, M.F.A., 1964
- RUTHERFORD, PHILLIP R. (1966) Professor of English; East Texas State University, B.A., 1962, M.A., 1964, Ph.D., 1966
- SAWTELLE, GWEN D. (1938-43, 1953) Assistant Professor of Art; Chairman, Department of Art; University of Minnesota, B.S., 1935; George Peabody College for Teachers, M.A., 1939
- SAWYER, C. ELIZABETH (1943) Assistant Professor of English; University of Maine, B.A., 1928; Boston University, M.A., 1943; Middlebury College, M.A., 1964
- SCHLEH, EUGENE P. A. (1965) Associate Professor of History; Union College, B.A., 1961; Yale University, M.A., 1962, Ph.D., 1968
- SCHWINCK, LOTTE (1969) Associate Professor of Biology; University of Tübingen, D.L.S., 1956
- SEILER, JOHN J. (1970) Instructor of Political Science; Massachusetts Institute of Technology, B.S., 1955; Boston University, M.A., 1961
- SLAVICK, WILLIAM H. (1970) Assistant Professor of English; University of Notre Dame, B.A., 1949, M.A., 1951
- SLOCUM, LLOYD V. (1968) Associate Professor of Industrial Arts; Pennsylvania State University, B.S., 1955, M.S., 1957
- SMALL, DUANE L. (1969) Instructor of Education; Farmington State College, B.S., 1964; Gorham State College, M.S. in Ed., 1967
- SMITH, CHARLES F. (1969) Associate Professor of Elementary Education; Westfield State College, B.S., 1960; University of Massachusetts, M.S., 1963, Ed.D., 1969
- SMITH, PATRICK B. (1968) Associate Professor of Education; Michigan State University, B.A., 1961; M.A., 1964; Ed.D., 1968

- SOUTHWORTH, ROBERT S. (1963) Professor of Psychology; Boston University, B.A., 1951, Ed. M., 1958, Ed.D., 1965
- SOYCHAK, ANTHONY G. (1965) Assistant Professor of Mathematics; University of Maine, B.S., 1959; Bowdoin College, M.A., 1963
- STUMP, WALTER R. (1968) Associate Professor of Speech and Theater; San Diego State College, B.A., 1959, M.A., 1960
- SULLIVAN, JEROME H. (1966) Director of Student Aid, UMPG; Arizona State University, B.S., 1963
- TAYLOR, JOHN K. (1970) Associate Professor of Education; Teachers College, Columbia University, B.S., 1952, M.A., 1954
- THOMAS, DON P. (1968) Instructor of Physical Education; Keystone Junior College, A.A., 1956; East Stroudsburg State College, B.S., 1958, M.Ed., 1967
- UBANS, JURIS K. (1968) Assistant Professor of Art; Syracuse University, B.F.A., 1966; The Pennsylvania State University, M.F.A., 1968
- VENTRESCO, FIORELLO B. (1966) Assistant Professor of History; Boston University, A.B., 1959; University of Michigan, M.A., 1961
- VINCENT, STANLEY J. (1959) Assistant Professor of English; Boston University, B.A., 1949; Columbia University Teachers College, M.A., 1950
- WALKER, PAUL R. (1970) Assistant Professor of Reading; Boston College, A.B., 1960; Gorham State College, M.S. in Ed., 1967; University of Maine, Ed.D., 1970
- WARREN, WILLIAM C. (1966) Assistant Professor of Wood Technology; Gorham State College, B.S., 1959; University of Maryland, M.A., 1967
- WATERHOUSE, RUTH (1970) Instructor of Sociology; University of Maine, B.A., 1968, M.A., 1970
- WEEKS, ERNEST E. (1967) Associate Professor of English; Bowdoin College, A.B., 1939; Tufts University, M.A., 1949; Columbia University, Ph.D., 1965
- WHITTEN, JAMES M. (1951) Associate Professor of Social Science; Colby College, A.B., 1944; University of Maine, A.M., 1955
- WHITTEN, MAURICE M. (1955) Associate Professor of Science; Colby College, A.B., 1945; Columbia University, M.A., 1949
- WISE, WILLIAM B. (1966) Assistant to the Acting Dean of Academic Affairs, UMPG, Gorham; Director of Evening College; University of Maine, B.S., 1961
- WITHERILL, ROBERT D. (1966) Assistant Professor of Economics; Colby College, A.B., 1947; University of Maine, M.A., 1953, M.Ed., 1962
- WOOD, ESTHER E. (1930) Associate Professor of Social Sciences; Colby College, A.B., 1926; Radcliffe College, 1929
- YORK, ROBERT M. (1962) Acting Dean of Academic Affairs, UMPG; Professor of History; Bates College, A.B., 1937; Clark University, M.A., 1938; Ph.D., 1941
- YOUNG, ANNE P. (1965) Professor of History; Boston University, B.S., 1943, M.A., 1944; University of Chicago, Ph.D., 1951



# Personnel of The Portland Campus

## EMERITUS

BONNEY, LUTHER ISAAC (1957-58); B.A., Bates, 1906; M.A. (Hon.), 1951; Sc.D. in Ed., Maine, 1959; Dean Emeritus, University of Maine in Portland.

## PERSONNEL

*(The following listing includes both teaching faculty and also those members of the UMPG administrative personnel with principal offices at Portland. Dates in parentheses indicate year of initial appointment.)*

ALBEE, PARKER BISHOP, JR. (1966); A.B., Dartmouth College, 1961; M.A., Duke University, 1964; Ph.D., 1968; Assistant Professor of History.

ANDREWS, SAMUEL GEORGE (1966); B.S.B.A., Babson Institute, 1964; M.S., Maine, 1966; Assistant Professor of Business Administration.

ANNETT, DONALD ARCHIE (1969); B.S., University of New Hampshire, 1937; M.B.A., New York University, 1963; Instructor in Business and Economics.

ANSPACH, DONALD FREDERICK (1970); A.B., Franklin and Marshall College, 1964; M.A., Western Reserve University, 1966; Ph.D., Case Western Reserve University, 1970; Assistant Professor of Sociology.

ARMENTROUT, CHARLES (1960); B.S., Maine, 1955; M.S., Wesleyan University, 1958; Assistant Professor of Physics.

BAIER, LEE S. (1966); A.B., Reed College, 1948; M.A., Columbia University, 1952; Ph.D., 1965; Associate Professor of English.

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BISHOP, JOHN SCOTT (1968); B.A., University of New Brunswick, 1953; M.A., Dalhousie University, 1957; Ph.D., University of London, 1958; Associate Professor of Psychology; Assistant to the Acting Dean of Academic Affairs, UMPG, Portland.

- BRETON, LILLETTE CAMILLE (1969); B.S., Maine, 1965; M.S., 1968; Instructor in Physical Education.
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- BULLOCK, WILLIAM B. (1970); B.S., Cornell University, 1954; M.B.A., 1959; Acting Director of Finance and Administration, UMPG.
- BURKE, L. MORRILL, JR. (1959); A.B. Bowdoin, 1949; M.A., University of Washington, 1951; Assistant Professor of English.
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- CHABOT, MAURICE JOSEPH (1965); B.A., Maine, 1961; M.A., Bowdoin, 1965; Assistant Professor of Mathematics.
- CHANDLER, JOSEPH (1968-69) (1970); A.B., Bowdoin College, 1942; M.B.A., University of Maine, 1967; Instructor in Business and Economics.
- CHRONISTER, FLOYD BROWN (1966); B.M., Conservatory of Music of U.M.K.C., Missouri, 1953; B.M.E., University of Kansas, 1955; M.M.E., 1959; Ed.D., 1969; Assistant Professor of Education.
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- CONNICK, GEORGE PERCY (1966); B.A., Stanford University, 1957; M.A., San Jose State College, 1960; Ph.D., University of Colorado, 1969; Associate Professor of History; Acting Director of Academic Planning, UMPG.
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## PORTLAND

- DALVET, YVES FRANCOIS (1968); B.A., Laval College, 1940; M.A., New York University, 1965; M.Ph., Yale, 1969; Assistant Professor of French.
- DIBENEDETTO, LUCIA A. (1970); B.A., Emmanuel College, 1963; M.A., Middlebury College, 1965; Instructor in French.
- DIETRICH, CRAIG (1968); A.B., University of Chicago, 1961; Ph.D., 1970; Assistant Professor of History.
- DONNINI, MARY WRIGHT (1955); B.S., Maine, 1938; M.Ed., Boston University, 1964; Extension Agent (Cumberland County), Cooperative Extension Service.
- DONOVAN, JOHN WILLIAM (1969); B.S., Husson College, 1964; M.S., University of Rhode Island, 1970; Extension Agent (Cumberland County), Cooperative Extension Service.
- DUCLOS, ALBERT JOSEPH (1965); B.S. in Ed., Maine, 1963; M.A., 1965; Assistant Professor of Speech.
- DUCLOS, GLORIA SHAW (1962); A.B., Radcliffe, 1949; M.A., 1963; B.A., Oxford University, 1951; M.A., 1955; Assistant Professor of Classics.
- DUNNING, CLEMENT STEVENS (1947); B.S., Maine, 1947; Extension Agent (Cumberland County), Cooperative Extension Service.
- \*DURGIN, FRANK ALBERT, JR. (1964); B.A., Tufts University, 1949; Licence en Droit, University of Toulouse, France, 1954; Docteur en Droit, 1956; Professor of Business and Economics.
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- EDGECOMB, ALICE DYER (1969); B.S., Farmington State College, 1965; M.S., Gorham State College, 1968; Extension Agent (Cumberland County) Cooperative Extension Service.
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- EMANUELSON, MILLARD E. (1966); A.B., Colby, 1936; LL.B., Boston University, 1951; Lecturer in Business Administration.
- EMERY, VIRGINIA L. (1966); Shaw's Business College, 1938; Administrative Assistant to the President, UMPG.
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- FINDLAY, ROBERT WALKER (1967); B.S., Boston University, 1955; M.B.A., 1964; C.P.A. (Mass. and Maine); Associate Professor of Accounting.
- FISH, CAROLYN ANNE (1968); B.S., Boston University School of Nursing, 1964; M.P.H., University of North Carolina, 1967; Instructor in Nursing.
- FISHER, IRVING D. (1967); B.A., University of Connecticut, 1946; M.A., Columbia University, 1953; Assistant Professor of Political Science.

\*Leave of absence, 1970-71

- FITZPATRICK, ALBERT ARTHUR (1968); B.S., University of Southern California, 1949; M.B.A., 1951; M.S., Baylor University, 1955; Ph.D., University of Southern California, 1961; Professor of Business and Economics.
- FOLSOM, ROBERT EUGENE (1968); B.S., Springfield College, 1953; Ed.M., Boston University, 1963; Assistant Professor of Physical Education.
- FOSTER, CAROLYN NEIDIG (1966); A.B., Douglass College (Rutgers), 1958; M.S., Purdue University, 1961; A.M., Bowdoin College, 1966; Assistant Professor of Mathematics.
- FREISE, FREDERICK E. (1965); B.A., Culver Stockton College, 1941; M.Ed., Boston University, 1947; Director of Placement, UMPG.
- FRIDINGER, WALTER PETER (1961); B.S., Lebanon Valley College, 1938; Acting State Director and Center Director, Continuing Education.
- FULLAM, DAVID C. (1970); B.A., Colby College, 1960; M.A., University of New Hampshire, 1965; M.A., 1969; Instructor in Sociology.
- GAVIN, WILLIAM JOSEPH (1968); B.A., Fordham University, 1965; M.A., 1967; Ph.D., 1970; Assistant Professor of Philosophy.
- GIGUERE, MADELEINE DINORA (1967); B.A., College of New Rochelle, 1947; M.A., Fordham University, 1950; Associate Professor of Sociology.
- GRANGE, JOSEPH (1970); B.A., St. Joseph's, 1961; M.A., Fordham University, 1965; Ph.D., 1970; Assistant Professor of Philosophy.
- GRAY, CAROL J. (1970); B.S., Columbia University, 1962; M.N., University of Washington, 1964; M.Ed., Columbia University, 1968; Ed.D., Columbia University, 1970; Associate Professor of Nursing; Assistant Director of Nursing; Director, Bureau of Health Professions Education, UMPG.
- GREENWOOD, HELEN L. (1969); B.S., Northeastern University, 1958; M.S., University of New Hampshire, 1960; Ph.D., University of Connecticut, 1969; Assistant Professor of Biology.
- GROSSINGER, RICHARD S. (1970); A.B., Amherst College, 1966; A.M., University of Michigan, 1968; Instructor in Anthropology.
- GUAY, MERLE DANA, (1969); B.S., Tufts University, 1958; M.A., Maine, 1960; Ph.D., Michigan State University, 1967; Associate Professor of Mathematics.
- HALL, OWEN C. (1961); B.S., Portland University, 1955; C.P.A., Maine Society of Public Accountants; Associate Professor of Business and Economics.
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\*Leave of absence, 1970-71



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- HOLMES, PETER KARL (1968); A.B., Bowdoin College, 1956; M.A., Wesleyan University, 1958; Ph.D., University of Illinois, 1964; Assistant Professor of Biology.
- HOPKINSON, DAVID BRADFORD (1959); B.S., Maine, 1942; M.S., Vermont, 1949; M.E., Maine, 1961; P.E. (Maine); Associate Professor of General Engineering.
- HORTON, DONALD BION (1969); B.S., Union College (New York), 1954; M.S., University of Rhode Island, 1958; Ph.D., 1965; Lecturer in Biology; Executive Director, The Research Institute of the Gulf of Maine (TRIGOM).
- HUNT, HARRY DRAPER III (1965); B.A., Harvard, 1957; M.A., Columbia University, 1960; Ph.D., 1968; Associate Professor of History.
- IVANISIN, ANNA BERNADINE (1967); B.S., Columbia University, 1938; M.A., 1946; Associate Professor of Nursing.
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- JAQUES, JOHN FREDERICK (1957); A.B., Bowdoin, 1943; A.M., Columbia, 1946; Associate Professor of English.
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- KERN, ABRAHAM K. (1959); A.B., Bowdoin, 1936; M.Ed., Maine, 1956; Associate Professor of Botany and Zoology.
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- LARSEN, REBECCA CHESTER (1966); A.B., Colby, 1933; M.A., Western Reserve University, 1934; Registrar, UMPG.
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- LEWIS, JAN M. (1970); B.S., Boston University School of Nursing, 1968; Instructor in Nursing.

- LEWISOHN, JAMES ELIAS (1965); A.B., Brandeis University, 1956; M.H.L., Jewish Theological Seminary, 1959; Assistant Professor of English.
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- McKEIL, RICHARD LLOYD (1965); B.A., Maine, 1959; M.A., 1965; Assistant Professor of Business and Economics.
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- MacLEOD, WILLIAM JOHN (1969); Th.B., Gordon College, 1938; A.M., Boston University, 1940; Ph.D., 1948; Professor of Philosophy, Acting President, UMPG.
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- MUNSEY, WILLIAM J. (1965); B.S., University of Maine, 1960; M.Ed., Boston University, 1964; Director of Admissions, UMPG.

\*Leave of absence, 1970-71.



## PORTLAND

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- ROSCOE, MARJORIE MARY (1966); B.S., in P.H.N., Simmons College, 1950; M.P.H., University of Michigan, 1959; Associate Professor of Nursing.
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- SANBORN, JANE OBERHOLTZER (1961); A.B., Wilson College, 1942; Ed.M., University of California, 1961; Ed.D., University of California at Los Angeles, 1961; Director of Testing and Counseling, and Associate Professor of Psychology.
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\*Leave of absence, Fall, 1970

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- SMITH, ALAN GUY (1967); B.Sc., Mount Allison University (New Brunswick), 1949; M.Sc., University of New Brunswick, 1951; Ph.D., Maine, 1966; Associate Professor of Chemistry.
- SMITH, ALLAN BUNKER; B.A., Bates College, 1927; M.S., University of Connecticut, 1949; Ph.D., 1953; Part-time Instructor in Education, Division of Social Science.
- SNOW, ROGER V., JR. (1967); Williams College, 1940; Director of the Bureau of Labor Education.
- SOTTERY, THEODORE WALTER (1956); B.N.S., Dartmouth, 1946; M.S., Maine, 1956; Ph.D., 1966; Associate Professor of Chemistry.
- SOULE, WILLIAM HILTON (1965); A.B., Bowdoin, 1936; M.Ed., Bates, 1941; Ed.D., Boston University, 1967; Associate Professor of Education.
- STEELE, WILLIAM PAUL (1967); B.S. in Ed., Maine, 1964; M.A., 1967; Assistant Professor of Speech.
- STEINMAN, RICHARD (1966); B.A., University of Missouri, 1949; M.S., Columbia University, 1952; Ph.D., Brandeis University, 1968; Associate Professor of Social Welfare.
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- SULLIVAN, JAMES VINCENT (1959); B.S. in Ed., Maine, 1951; M.Ed., University of Delaware, 1954; Director of Physical Education and Athletics and Associate Professor of Physical Education.
- TALBOT, FRANKLIN (1963); B.A., University of Maine, 1946; M.S., Columbia University, 1949; Cataloger and Associate Professor of Library Service.
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\*Leave of absence, Spring, 1971



## PORTLAND

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- TRYON, PHYLLIS ARLEEN (1965); B.S., Boston University, 1958; M.S.N. and C.N.M., Yale University, 1962; Assistant Professor of Nursing.
- TUKEY, GERALDINE M. (1970); B.S., Mercy College of Detroit; M.S., Boston University, 1964; Instructor in Nursing.
- UBANS, MARA (1970); A.B., Indiana University, 1960; M.A., University of Southern California, 1962; part-time Instructor in German.
- UN, CHONG (1969); B.S., University of Delaware, 1964; M.S., 1966; Ph.D., 1969; Assistant Professor of Electrical Engineering.
- VAN AMBURG, GEORGE EDWARD (1961); B.S., Portland University, 1956; Director of Student Union, Portland.
- VAN HEMEL, PAUL E. (1970); B.S., Hobart College, 1965; M.A., Johns Hopkins University, 1967; Ph.D., 1970; Assistant Professor of Psychology.
- WAKELIN, EDMUND F. (1963); B.A., Dartmouth, 1939; District Recreation Specialist, Cooperative Extension Service.
- WALKLING, ROBERT A. (1969); B.A., Swarthmore College, 1953; M.S., Harvard University, 1954; Ph.D., 1962; Associate Professor of Physics.
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- WHITING, WILLIAM LAWRENCE (1947); B.A., Maine, 1937; M.Ed., Bates, 1948; M.A., Northwestern University, 1954; Associate Professor of Speech and Associate Dean, UMPG, Portland.
- WHITMORE, ALLAN RICHARD (1969); B.A., Maine, 1962; M.A., Northwestern University, 1964; Ph.D., 1970; Assistant Professor of History.
- WILLARD, NANCY LEE (1969); B.S., Russell Sage, 1958; M.S. in Ed., Suce, Plattsburg, New York, 1967; Assistant Professor of Physical Education.
- WILSON, NEVILLE (1968); B.A., Tufts University, 1965; Assistant Professor of English.
- WOLF, BARBARA BUCKLEY (1969); B.A., Grinnell College, 1946; M.A., State University of New York (Albany), 1967; Instructor in English.

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Education, Measurement and Evaluation .....	Ed .....	72 .....	Py .....	166
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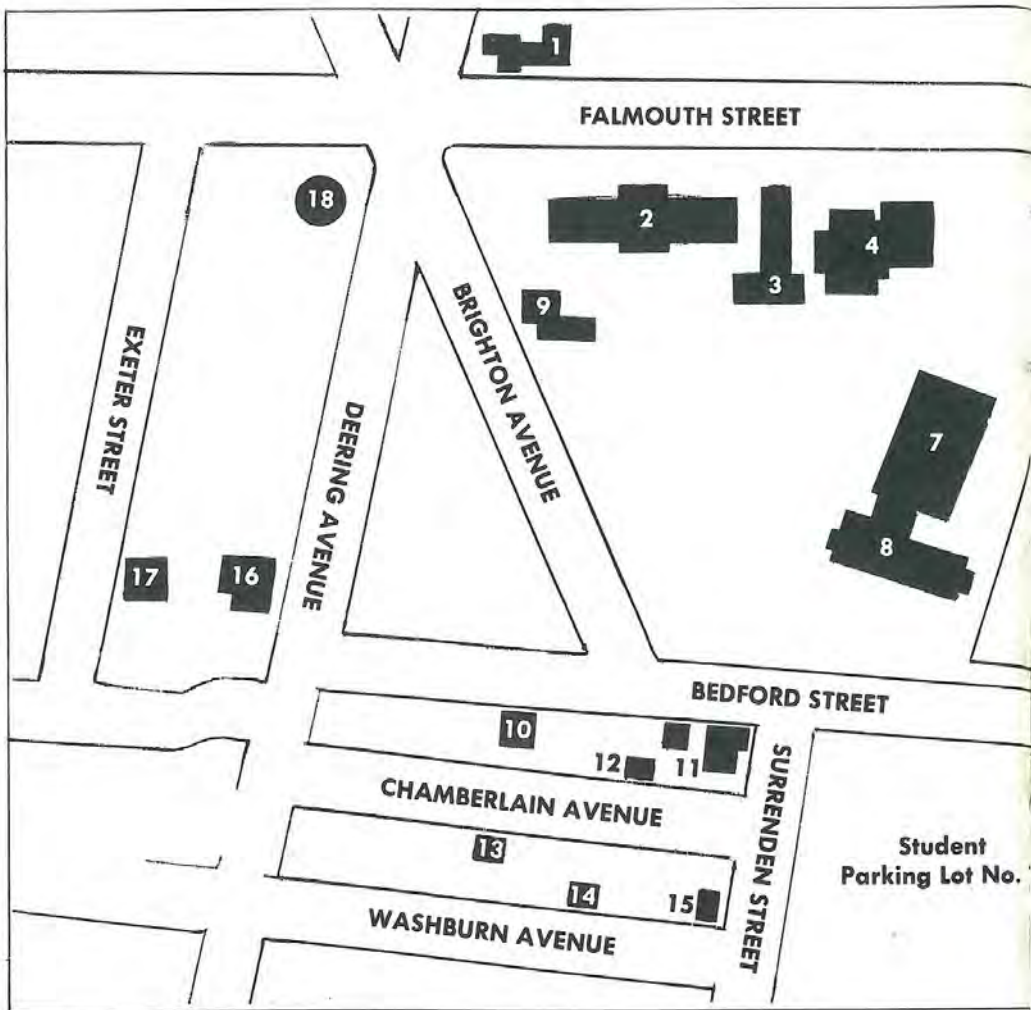


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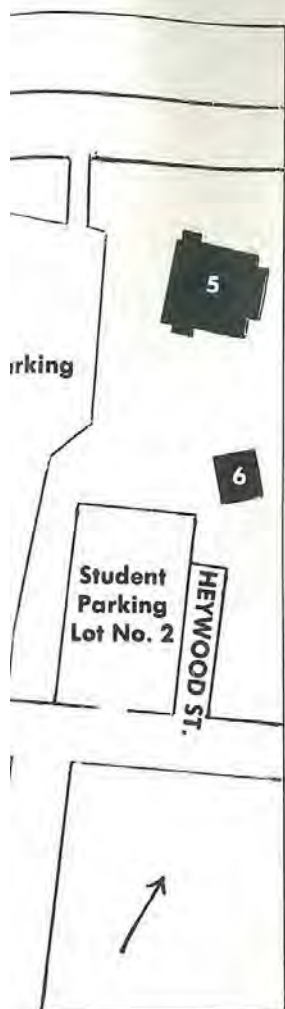


#### Offices

- 2. Admissions
- 10. Alumni
- 2. Business Manager
- 4. Computer Center
- 2. Continuing Education Division
- 8. Dean's Office
- 10. Development
- 10. Educational TV
- 5. Health Office

- 2. Personnel
- 4. Planetarium
- 8. President's Office
- 10. Public Information
- 2. Registrar
- 2. Student Affairs
- 2. Student Aid
- 11. Student Publications
- 2. Testing and Counseling
- 14. Trigom

## *the Portland campus*



### Buildings

1. Dean's Residence (Dean of the Law School)
2. Payson Smith Hall
3. Bookstore
4. Science Building
5. Physical Education Building
6. Central Heating Plant
7. Library
8. Luther Bonney Hall
9. Faculty Offices
10. University Relations
11. Student Union
12. Cooperative Extension Service
13. Faculty Offices
14. Faculty Offices
15. Faculty Offices
16. Chancellor's Office
17. Plant Department — Faculty Offices
18. Law School — Center for Research and Advanced Study (under construction)



★ Location of the Portland campus





# Academic Calendar 1970-71

## The Portland Campus

1970

### First Semester

September 12	Registration of all Students who have not Previously Completed it by Mail
September 14	Classes Begin
October 16	End of First Five Weeks (for withdrawal)
November 9	Mid Semester Reports Due (Covering the First Half Semester to November 6)
November 20	End of Second Five Weeks (for withdrawal)
November 20	Thanksgiving Recess Begins
November 30	Classes Resume
December 18	Christmas Recess Begins
January 4	Classes Resume
January 15	Classes End
January 18	Final Examinations Begin
January 26	Final Examinations End
January 23	Commencement Exercises
January 26	Midyear Recess Begins
January 30	Registration of all Students who have not Previously Completed it

1971

### Spring Semester

February 1	Classes Begin
March 5	End of First Five Weeks (for withdrawal)
March 26	Spring Recess Begins
April 5	Classes Resume
April 16	End of Second Five Weeks (for withdrawal)
May 6	Maine Day (tentative)
May 21	Classes End
May 24	Final Examinations Begin
June 1	Final Examinations End
June 5	Commencement Exercises

### SUMMER SESSION

- 1971 — Six-Week Sessions: June 21-July 30; July 5-August 13;  
August 2-September 10
- 1971 — Three-Week Sessions: June 21-July 9; July 12-July 30;  
August 2-20; August 23-September 10

*For the Gorham Campus Calendar, see inside front cover.*



